This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

BG
1200

Digitized by Google

HARVARD UNIVERSITY

LIBRARY OF THE
MINERALOGICAL
LABORATORY
UNIVERSITY MUSEUM

Digitized by Google

Digitized by Google

Digitized by Google

DEPARTMENT OF THE INTERIOR
FRANKLIN K. LANE, Secretary

UNITED STATES GEOLOGICAL SURVEY
GEORGE OTIS SMITH, Director

Bulletin 634

SPIRIT LEVELING IN LOUISIANA

1903 TO 1915, INCLUSIVE

R. B. MARSHALL, CHIEF GEOGRAPHER

Work during 1906 and 1909 done in cooperation with the State

WASHINGTON
GOVERNMENT PRINTING OFFICE
1916

Digitized by Google

ADDITIONAL COPIES

OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
5 CENTS PER COPY
△

Digitized by Google

CONTENTS.

	Page.
Introduction	5
Cooperation	5
Previous publication	5
Personnel	5
Classification	5
Bench marks	6
Datum	6
Topographic maps	7
Precise leveling	7
Crowley, Derouen, Duson, Jeanerette, Lake Arthur, and St. Martinville quadrangles (Acadia, Calcasieu, Iberia, Lafayette, and St. Mary parishes)	7
Lake Jatt, Montgomery, and Winnfield quadrangles (Grant and Winn parishes)	11
Primary leveling	12
Winnfield quadrangle (Winn parish)	12
Baton Rouge, Bayou Sara (30′), Grosse Tete, Port Vincent, and White Castle (15′) quadrangles (Ascension, East Baton Rouge, West Baton Rouge, East Feliciana, West Feliciana, Iberville, and Pointe Coupee parishes)	13
Harrisonburg, Lake Providence, St. Joseph, Tallulah, and Vicksburg 30′ quadrangles, and several 7½′ subdivisions (Tensas drainage district) (East Carroll, West Carroll, Concordia, Madison, and Tensas parishes)	16
Blanchard and Keithville quadrangles (Caddo Parish)	27
Appendix A. Elevations adjusted by the Coast and Geodetic Survey from precise leveling	31
Index	97

ILLUSTRATION.

	Page.
PLATE I. Geological Survey bench marks	5

Digitized by Google

Digitized by Google

Digitized by Google

GEOLOGICAL SURVEY BENCH MARKS.

A, Tablet used in cooperating States. The State name is inserted at *G*.
B and *D*, Copper temporary bench mark, consisting of a nail and copper washer.
A, *C*, and *E*, Tablets for stone or concrete structures.
F, Iron post used where there is no rock.

Digitized by Google

SPIRIT LEVELING IN LOUISIANA, 1903 TO 1915, INCLUSIVE.

R. B. MARSHALL, Chief Geographer.

INTRODUCTION.

Cooperation.—The State of Louisiana contributed financially to the work of 1906 through the State Geological Survey, Prof. G. D. Harris, State geologist, and in 1909 through the Fifth Louisiana levee district, J. T. McClellan, president of the board of commissioners.

Previous publication.—That part of the results of spirit leveling in Louisiana previously published in Bulletin 458 based on the 1907 adjustment has been corrected to agree with the 1912 adjustment of precise leveling of the Coast and Geodetic Survey and is here republished, together with results of spirit leveling by the United States Geological Survey in Louisiana since 1909. The elevations by the 1907 adjustment were changed but slightly by the 1912 adjustment and are not likely to be changed by any future adjustment of the level net.

Personnel.—The field work from 1903 to 1906, inclusive, was done under the direction of H. M. Wilson, geographer, and that from 1907 to 1915, inclusive, was done under Frank Sutton, geographer. The work since January, 1908, was done under the general direction of R. B. Marshall, chief geographer. Credit is given to the respective levelmen in the headings of the several lists. The office work of computation, adjustment, and preparation of lists was done mainly by S. S. Gannett, geographer, under the general direction of E. M. Douglas, geographer.

Classification.—The elevations are classified as precise or primary, according to the methods employed in their determination. The former are determined by lines of levels run either in both forward and backward directions or by simultaneous double-rodded lines, a high-grade instrument being used and special precautions being taken in observations and reduction to correct errors and make the line continuously good throughout. The latter or primary levels are determined with the Y level, precautions being taken against only the principal errors and the levels being run mostly in circuits of single lines. The allowable limit of error observed on the precise work already

Digitized by Google

done by the Geological Survey in this State is represented in feet by $0.017\sqrt{D}$ and that for the primary work by $0.05\sqrt{D}$, in which D is the length of the circuit in miles.

Bench marks.—The standard bench marks are of two forms. The first form is a circular bronze or aluminum tablet (*C* and *E*, Pl. I), 3½ inches in diameter and ¼ inch thick, having a 3-inch stem, which is cemented in a drill hole in solid rock in the wall of some public building, a bridge abutment, or other substantial masonry structure. The second form (*F*, Pl. I), used where masonry or rock is not available, consists of a hollow wrought-iron post 3½ inches in outer diameter and 4 feet in length, which is set about 3 feet in the ground. The bottom is spread out to a width of 10 inches in order to give a firm bearing in the earth, and a bronze or aluminum-bronze cap is riveted upon the top of the post. A third style of bench mark, with abbreviated lettering (*B* and *D*, Pl. I), is used for unimportant points. This consists of a special copper nail 1½ inches in length driven through a copper washer ⅞ inch in diameter. The tablets as well as the caps on the iron posts are appropriately lettered, and cooperation by a State is indicated by the addition of the State name (*G*, Pl. I).

The numbers stamped on the bench marks described in the following pages represent the elevations to the nearest foot as determined by the levelman. These numbers are stamped with $\frac{3}{16}$-inch steel dies on the tablets or post caps, to the left of the word "Feet." The office adjustment of the notes and the reduction to mean sea level datum may so change some of the figures that the original markings are 1 or 2 feet in error. It is assumed that engineers and others who have occasion to use the bench-mark elevations will apply to the Director of the United States Geological Survey, at Washington, D. C., for the adjusted values, and will use the markings as identification numbers only.

Datum.—All elevations determined by the United States Geological Survey and United States Coast and Geodetic Survey are referred to mean sea level, which is the level that the sea would assume if the influence of winds and tides were eliminated. This level is not the elevation determined from the mean of the highest and the lowest tides, nor is it the half sum of the mean of all the high tides and the mean of all the low tides, which is called the half-tide level. *Mean sea level is the average height of the water, all stages of the tide being considered.* It is determined from observations made by means of tidal gages placed at stations where local conditions, such as long, narrow bays, rivers, and like features, will not affect the height of the water. To obtain even approximately correct results these observations must extend over at least one lunar month, and if accuracy is desired they must extend over several years. At ocean stations the

Digitized by Google

half-tide level and the mean sea level usually differ but little. It is assumed that there is no difference between the mean sea levels determined from observations in the Atlantic Ocean, the Gulf of Mexico, and the Pacific Ocean.

The connection with tidal stations for bench marks in certain areas that lie at some distance from the seacoast is still uncertain, and this fact is indicated by the addition of a letter or word to the right of the word "Datum" on tablets or posts. For these areas corrections for published results will be made from time to time as the precise-level lines of the United States Geological Survey or other Government organizations are extended.

Topographic maps.—Maps of the following quadrangles, wholly or partly in Louisiana, have been published by the United States Geological Survey up to July 1, 1916. They may be obtained at 10 cents each or $3 for 50 on application to the Director of the Survey, at Washington, D. C.

Ashton Bridge.
Atlanta (Tex.-Ark.-La.).
Barataria.
Baton Rouge.
Baxter Bayou.
Bayou de Large.
Bayou Sara.
Bodreau.
Bonnet Carre.
Cat Island (La.-Miss.).
Chandeleur.
Chef Menteur.
Cheniere Caminada.
Creole.
Cut Off.
Dime.
Donaldsonville.
Dulac.
East Delta.
Fort Livingston.
Forts.
Gibson.
Hahnville.
Houma.
Lac des Allemands.
La Fortuna.
Lake Felicity.
Lake Providence.
Millikens Bend.
Millikin.
Mound.
Mount Airy.
New Orleans.
Pointe a la Hache.
Quarantine.
Rigolets (La.-Miss.).
St. Bernard.
Shell Beach.
Spanish Fort.
Thibodaux.
Timbalier.
Toulme (La.-Miss.).
West Delta.
Wilson Point.

PRECISE LEVELING.

Crowley, Derouen, Duson, Jeanerette, Arthur Lake, and St. Martinville quadrangles.

ACADIA, CALCASIEU, IBERIA, LAFAYETTE, AND ST. MARY PARISHES.

The following are the unadjusted results of a spur line of precise levels from Weeks Island east along the Cypremort branch of the Southern Pacific Railroad to Baldwin, thence along the main line of the Southern Pacific Railroad northwest to Lafayette, thence west to Jennings, a total distance of about 100 miles. The work was done in cooperation with the Louisiana Geological Survey, Prof. G. D.

Digitized by Google

Harris, State geologist, in charge. Prof. Harris established an automatic tide gage and several bench marks, descriptions of which are included, on Weeks Island in February, 1905. The line starts from bench mark No. 1 (upper), one of those established by Prof. Harris. This bench mark is the rounded top of a brass plug protruding through the cap on an iron post set about 250 yards west of the terminus of the railroad at the Weeks Island salt mine, and about 0.8 mile east from the tide gage. The elevation as determined by the Coast and Geodetic Survey in 1905 and 1906 is 19.42 feet above mean sea level.

The leveling was done in 1906 by E. L. McNair.

DERQUEN QUADRANGLE.

[Latitude 29° 45′–30°; longitude 91° 45′–92°.]

Weeks Island.[1]

	Feet.
Weeks Island, in marsh on west side of island, in Weeks Bay, which is the northeast portion of Vermilion Bay. Zero of a fixed tide staff secured to a pile near the tide house [2] of automatic tide gage 45, which is built on piles driven in the marsh (below sea level)	−3.92
Bench mark No. 1 (lower), about 250 yards west of terminus of railroad at salt mine, and 0.7 mile east of tide gage, 4 feet below surface of ground; top of 1-inch rounded head of 3-inch brass bolt 0.5 inch in diameter, set vertically in cement, surmounted by a 4-inch iron pipe 5 feet long covered with an iron cap bolted on in such a way as to permit level rod to be inserted	14.130
Bench mark No. 1 (upper), rounded top of brass plug protruding through iron cap over bench mark No. 1 (lower), about 1 foot above ground	19.420
Bench mark No. 2 (lower), in northern part of Weeks Island, about 20 yards from private road and 5 yards from stream bed; similar to bench mark No. 1.	32.177
Bench mark No. 2 (upper), rounded top of brass plug protruding through the iron cap over bench mark No. 2, about 1 foot above ground	37.437
Bench mark No. 3, southeastern part of Weeks Island, in brick wall of Foote sugarhouse, about 4 feet above ground and 8 feet to right of central door; center of a half-inch drill hole 4 inches deep	44.50
Bench mark No. 4, inside Myles Salt Co. inclosure, about 30 feet east of gate to main road, in sleeve coupling screwed to top of 2.5-inch iron pipe 4 feet long, which has an 8-inch flange screwed to bottom; top of 1.5-inch square bolt	127.898
Bench mark No. 5, southwest side of deep cut in road from Foote sugarhouse to Sandy Bottom Lake, about 15 feet west of edge of cut on high ground, well hidden in underbrush; United States Geological Survey standard iron post	81.414
Bench mark No. 6, northeastern point of ridge, about 0.1 mile west of outlet stream of Sandy Bottom Lake; United States Geological Survey standard iron post	72.910

[1] Bench marks numbered 1 to 6 were established by Prof. G. D. Harris, State geologist (Louisiana Geological Survey).

[2] This tide station was established by Prof. G. D. Harris at the expense of the Louisiana Geological Survey, but the gage was set and records made by and at the expense of the Coast and Geodetic Survey. The elevation given was determined from the automatic record for the years 1905 and 1906. The tide at Weeks, La., is diurnal, or has one high water and one low water in each day, about half the time.

Digitized by Google

From Weeks Island east along Cypremort branch of Southern Pacific R. R. to Florence.

	Feet.
Cypremort, in front of station; top of rail	7.9
Cypremort, 600 feet east of station, 22 feet north of main track, at cattle guard; iron post stamped "8"	7.722
Ivanhoe station, at road crossing; top of rail	7.6
Florence, in front of station; top of rail	7.7

From Olivier northwest along Southern Pacific R. R. to New Iberia.

Olivier, in front of station; top of rail	21.7
Olivier, 54 feet west of station, 25 feet north of north track; iron post stamped "Prim. Trav. Sta. No. 29" and (erroneously) "21 LA"	19.502
New Iberia, 2.8 miles east of, 225 feet west of highway crossing, 57 feet south of track; iron post stamped "17 LA"	16.999

JEANERETTE QUADRANGLE.

[Latitude 29° 45′–30°; longitude 91° 30′–91° 45′.]

From Cote Blanche east along Cypremort branch of Southern Pacific R. R. to Baldwin.

Cote Blanche, in front of station; top of rail	7.8
Cote Blanche station, 100 feet east of highway crossing, 20 feet north of center of track; iron post stamped "7"	7.255
Glencoe, in front of station; top of rail	11.4
Glencoe, southeast corner of station, 5 feet north of platform steps, 30 feet north of main track; iron post stamped "10"	9.591
Vacherie, 0.2 mile west of station, 240 feet west of highway crossing, 45 feet south of railroad and 15 feet southwest of corner of section tool house; iron post stamped "6 LA"	6.131
Franklin and Abbeville Junction, 20 feet west of end of station, 18 feet north of track (Weeks Island Branch); iron post stamped "5 LA"	5.103
Baldwin, in front of station; top of rail	13.0
Baldwin, 100 feet northwest of station, 25 feet west of center of highway, 15 feet south of switch; iron post stamped "11 LA"	11.090

From Baldwin northwest along Southern Pacific R. R. to Olivier.

Adeline, in front of station; top of rail	14.7
Adeline, 220 feet west of, about 30 feet north of track; iron post stamped "14 LA"	13.887
Jeanerette, 0.8 mile east of, 30 feet east of highway, on St. Mary-Iberia parish line, 45 feet north of north track; iron post stamped "17 LA"	17.41
Jeanerette, in front of station; top of rail	18.8
Jeanerette, 1.1 miles west of, 57 feet south of railroad track, 45 feet west of center of highway, near fence; iron post stamped "17 LA"	16.845

ST. MARTINVILLE QUADRANGLE.

[Latitude 30°–30° 15′; longitude 91° 45′–92°.]

From New Iberia northwest along Southern Pacific R. R. to point 1.2 miles east of Lafayette.

New Iberia, post-office building, in face of foundation at right of main entrance; aluminum tablet stamped "23 LA"	23.296
New Iberia, in front of station; top of rail	20.1
New Iberia, water tank opposite station, 55 feet east and 100 feet south of track; iron post	19.119
Segura, 600 feet west of station, in southwest corner of yard, 70 feet north of railroad; iron post stamped "28 LA"	28.422
Burke, 28 feet north of track, 20 feet east of public highway; iron post stamped (erroneously) "27 LA"	28.059

Digitized by Google

	Feet.
Burke, in front of station; top of rail	30.3
Duchamp, 20 feet east of public highway, 25 feet north of track; iron post stamped "Prim. Trav. Sta. No. 32, 33 LA"	33.227
Duchamp, in front of station; top of rail	35.8
Billeaud sugar mill, 500 feet west of, 30 feet north of track; iron post stamped "35"	35.385
Broussard, 30 feet east of station, 25 feet south of track, in corner of yard; iron post stamped "37 LA"	36.938
Broussard, in front of station; top of rail	37.3
Landry, in front of station; top of rail	34.1
Landry, 0.6 mile west of station, 18 feet north of track, 20 feet west of public highway; iron post stamped "36 LA"	36.705

DUSON QUADRANGLE.

[Latitude 30°–30° 15′; longitude 92°–92° 15′.]

From point 1.2 miles east of Lafayette west along Southern Pacific R. R. to Rayne.

Lafayette, 1.2 miles east of, 20 feet east of public highway, 30 feet south of track; iron post stamped "36 LA"	35.857
Lafayette, in front of station; top of rail	39.5
Lafayette, freight house yard, southeast corner of, on Lincoln Avenue; iron post stamped "Prim. Trav. Sta. No. 34, 39 LA"	39.174
Lafayette, 1.6 miles west of, 125 feet west of cattle guard 147 B, 48 feet north of track, in angle of road; iron post stamped "37 LA"	37.393
Scott station, section yard northwest of, in southeast corner; iron post stamped "36 LA"	36.470
Scott, in front of station; top of rail	36.3
Duson, 1 mile east of, 12.5 feet south of track, opposite "mile to station" post; iron post stamped "33 LA"	32.932
Duson, in front of station; top of rail	37.2
Duson, 25 feet west of, northwest corner of station, 50 feet north of track; iron post stamped "No. 36, 35 feet LA"	35.277
Duson, 1.6 miles west of, 20 feet west of public highway, 15 feet south of track; iron post stamped "32 LA"	32.239

CROWLEY QUADRANGLE.

[Latitude 30°–30° 15′; longitude 92° 15′–92° 30′.]

From Rayne west along Southern Pacific R. R. to Midland.

Rayne, in front of station; top of rail	35.7
Rayne, southeast corner of section yard northwest of station; iron post stamped "No. 37, 32 LA"	31.733
Rayne, 3.7 miles west of, 12 feet east of public highway crossing, 12 feet south of track, 90 feet west of milepost 164; iron post stamped "25 LA"	25.249
Crowley, in front of station; top of rail	23.9
Crowley, 40 feet west of railroad crossing at Parkinson Avenue, 24.5 feet south of track; iron post stamped "No. 38, 24 LA"	23.820
Crowley, 2.2 miles west of, north right of way line opposite milepost 169; iron post stamped "19 LA"	18.670
Estherwood, in front of station, 33 feet north of track; iron post stamped "17 LA"	16.544
Estherwood, in front of station; top of rail	19.5
Midland, 400 feet east of station, 35 feet south of main line of Southern Pacific R. R.; iron post stamped "14 LA" [1]	14.411

[1] This bench mark has been destroyed according to letter from G. C. Scarlette, Sept. 23, 1910.

Digitized by Google

ARTHUR LAKE QUADRANGLE.

[Latitude 30°-30° 15′; longitude 92° 30′-92° 45′.]

From Midland west along Southern Pacific R. R. to Jennings.

	Feet.
Mermenton, 1.3 miles east of, 135 feet east of milepost 179, 60 feet north of track; iron post stamped "10 LA"	10.457
Mermenton, in front of station; top of rail	16.9
Mermenton, 190 feet west of, 35 feet south of south rail; iron post stamped "No. 41, 13 LA"	12.833
Jennings, 2.25 miles east of, 25 feet east of public highway crossing, 65 feet north of track; iron post stamped "18 LA"	18.344
Jennings, 300 feet west of old station, 55 feet south of track, 14 feet west of sidewalk; iron post stamped "No. 42, 29 LA"	29.070
Jennings, 0.4 mile west of, 115 feet west of signal tower 1858, 25 feet north of track; iron post stamped "25 LA"	25.445

Lake Jatt, Montgomery, and Winnfield quadrangles.

GRANT AND WINN PARISHES.

The elevations in the following list were determined by a spur line of precise levels extended from bench mark No. 69 of the United States Army Corps of Engineers at Colfax, La. This bench mark is a copper bolt in a buried stone surmounted by an iron pipe, the elevation of the cap of which is accepted as 100.351 feet above mean tide. A prism level and yard rods were used.

The leveling was done in October, 1906, by E. L. McNair.

LAKE JATT QUADRANGLE.

[Latitude 31° 30′-31° 45′; longitude 92° 30′-92° 45′.]

From Colfax along track of Louisiana Ry. & Navigation Co. to Phillips.

	Feet.
Colfax, in sandstone water table in courthouse foundation, 3 feet north of main entrance; aluminum tablet stamped "103"	102.517
Colfax, 12 feet west of track, 1 foot northeast of northeast corner of ticket office; iron post stamped "97"	97.446
Colfax, in front of station; top of rail	96.8
Phillips station, west of track, 50 feet southwest of road crossing, 15 feet south of road, 18 feet southeast of sweet-gum tree; iron post stamped "95"	95.407

MONTGOMERY QUADRANGLE.

[Latitude 31° 30′-31° 45′; longitude 92° 45′-93°.]

From Phillips along track of Louisiana Ry. & Navigation Co. to Lofton.

Aloha, 1 foot northeast of southeast corner of station; iron post stamped "Prim. Trav. Sta. No. 1, 1906, 101"	101.284
Aloha, in front of station; top of rail	101.1
Verda, 1.1 miles southwest of, east of track on right of way; iron post stamped "150"	149.542
Verda, at northeast corner of ticket office at station; iron post stamped "Prim. Trav. Sta. No. 2, 1906, 157"	156.522
Verda, in front of station; top of rail	156.0
Lofton, 180 feet north of station, 55 feet east of track, on right of way; iron post stamped "193"	192.963
Lofton, in front of station; top of rail	194.5

Digitized by Google

WINNFIELD QUADRANGLE.

[Latitude 31° 45′–32°; longitude 92° 30′–92° 45′.]

From Lofton along track of Louisiana Ry. & Navigation Co. to Winnfield.

	Feet.
Emden, 350 feet south of station, 55 feet east of track, on right of way, 30 feet south of switch stand; iron post stamped "214"	213.783
Emden, in front of station; top of rail	219.5
Oakes, 120 feet south of road crossing, 50 feet east of track on right of way; iron post stamped "194"	194.420
Atlanta, at northwest corner of station ticket office, 12 feet east of track; iron post stamped "Prim. Trav. Sta. No. 3, 1906, 189"	188.642
Atlanta, 45 feet east of track, 10 feet south of road crossing, 40 feet west of northwest corner of Germain & Boyds' commissary; iron post stamped "188"	187.763
Atlanta, in front of station; top of rail	188.1
Germain & Boyd's mill, at road crossing; top of rail	190.5
Whitford, in front of station; top of rail	218.5
Whitford station, 15 feet west of track, 2 feet south of Louisiana Lumber Co.'s commissary freight platform; iron post stamped "220"	220.299
Alonzo station, 12 feet west of track, on south side of freight platform; iron post stamped "Prim. Trav. Sta. No. 4, 183, 1906"	182.552
Alonzo, opposite water tank; top of rail	182.3
Winnfield, 2 miles south of, 15 feet west of track, 10 feet south of private road crossing; iron post stamped "168"	167.200
Winnfield, in front of station; top of rail	117.5
Louisiana Ry. & Navigation Co. and Chicago, Rock Island & Pacific Ry. crossing; top of rail	117.5
Winnfield, southwest corner of station; iron post stamped "117"	117.325
Louisiana & Arkansas Ry. and Chicago, Rock Island & Pacific Ry. crossing; top of rail	118.6
Winnfield, northwest corner of courthouse yard, 1.5 feet inside fence; iron post stamped "Prim. Trav. Sta. No. 5, 1906, 141"	141.181

PRIMARY LEVELING.

Winnfield quadrangle.

WINN PARISH.

The elevations in the following list were determined by a spur line of primary levels from the courthouse at Winnfield from a bench mark of the line of precise levels run from Colfax, and checked by connection with secondary bench marks previously established by Prof. G. D. Harris.

The leveling was done in 1906 by E. L. McNair.

WINNFIELD QUADRANGLE.

[Latitude 31° 45′–32°; longitude 92° 30′–92° 45′.]

From Winnfield northeast along road to forks of road in sec. 17, T. 11 N., R. 2 W.

	Feet.
Winnfield, northwest corner of courthouse yard, 1 foot inside fence; iron post stamped "Prim. Trav. Sta. No. 5, 1906, 141"	141.181
Winnfield courthouse, 2.8 miles northeast of, 0.25 mile east of Dugdermonn Creek, sec. 17, T. 11 N., R. 2 W.; iron post stamped "Prim. Trav. Sta. No. 13, 1906, 128"	127.560

Digitized by Google

From Winnfield southeast along Louisiana & Arkansas Ry. to Moore station. (Single spur line.)

	Feet.
Winnfield, at southwest corner of Louisiana Ry. & Navigation Co. station; iron post stamped "117"	117.325
Moore flag station, 20 feet east of center of track and 15 feet north of wagon road; iron post stamped "Prim. Trav. Sta. No. 9, 1906, 207"	207.099

From Moore north along Chicago, Rock Island & Pacific Ry. to Tannehill.

Winnfield, in front of Chicago, Rock Island & Pacific Ry. station; top of rail	123.4
Tannehill station, south side of freight platform, 15 feet east of track; iron post stamped "Prim. Trav. Sta. No. 8, 1906, 136 ft."	136.053

From Winnfield northwest along Louisiana & Arkansas Ry. to Fay siding. (Single spur line.)

Winnfield, in front of Louisiana & Arkansas Ry. station; top of rail	126.0
Fay siding, southwest corner of lumber shed, 20 feet north of Louisiana & Arkansas Ry. track, 1 foot from corner of shed; iron post stamped "Prim. Trav. Sta. No. 7, 1906, 124"	123.646

Baton Rouge, Bayou Sara (30′), Grosse Tete, Port Vincent, and White Castle (15′) quadrangles.

ASCENSION, EAST BATON ROUGE, WEST BATON ROUGE, EAST FELICIANA, WEST FELICIANA, IBERVILLE, AND POINTE COUPEE PARISHES.

The elevations in the following list were determined by primary leveling extended from the Mississippi River Commission precise level line along Mississippi River. The leveling east of the Mississippi River in Bayou Sara quadrangle is based only upon "P. B. M. XXXI" at the State capitol, Baton Rouge, the elevation of which is accepted as 62.149 feet above mean sea level.

The leveling was done in the Bayou Sara quadrangle in 1903 by C. H. Birdseye, W. E. Earle, D. C. Fugitt, C. McRae, and D. V. Vandiver, and in the Baton Rouge, Grosse Tete, Port Vincent, and White Castle quadrangles in 1905 by Fox Wood.

BAYOU SARA QUADRANGLE.

[Latitude 30° 30′–31°; longitude 91°–91° 30′.]

From Baton Rouge north along Yazoo & Mississippi Valley R. R. to State line.

	Feet.
Baker, 0.8 mile north of, at road crossing, north side of road, at east edge of railroad right of way; iron post stamped "85 BR"	84.934
Zachary, in east wall of bank 1.5 feet from front of building; aluminum tablet stamped "100 BR"	99.450
Zachary, at road crossing; top of rail	100.9
Ethel, 250 feet west of station, in brick chimney on south end of Price Hotel; bronze tablet stamped "174 BR"	173.731
Gurley, 200 feet north of road crossing, at west edge of railroad right of way; iron post stamped "211 BR"	210.585
Norwood, at northeast corner of D. C. Norwood's warehouse and store, in north wall; bronze tablet stamped "312 BR"	312.626

Digitized by Google

From Slaughter along Yazoo & Mississippi Valley R. R. (Woodville branch) west to Bayou Sara, thence north to Laurel Hill, thence east along highway to Norwood.

	Feet.
Slaughter, 600 feet west of street running east-west, 100 feet north of station, in brick foundation pillar of northwest corner of Baptist Church; aluminum tablet stamped "134 BR"	134.028
Jackson Road station, on Woodville branch of Yazoo & Mississippi Valley R. R., 10 feet west of road, north edge of right of way; iron post stamped "117 BR"	116.942
Riddle, 200 feet west of station, 5 feet south of trestle; iron post stamped "66 BR"	65.726
St. Francisville, top step to northeast entrance to courthouse; aluminum tablet stamped "115 BR"	115.026
Bayou Sara, 100 feet south of station, in brick building facing west, known as Meyer Hotel; bronze tablet stamped "48 BR"	48.527
Converse, 0.8 mile south of station, 10 feet south of road crossing, west edge of right of way; iron post stamped "240 BR"	239.970
Laurel Hill, 30 feet northwest of Mark Cowen's storehouse, 10 feet east of large magnolia tree; iron post stamped "304 BR"	304.059

From Ethel northeast along Yazoo & Mississippi Valley R. R. (Clinton branch) to Clinton, thence northwest along highways to Norwood.

Clinton, in west side of courthouse; aluminum tablet stamped "213 BR"	213.615

From McManus west along Jackson R. R. to Jackson, thence southwest along highway to Bayou Sara.

Jackson, northeast corner of Presbyterian Church at southeast corner of Church and Erie streets; bronze tablet stamped "159 BR"	159.471

From Slaughter and Clinton to Olive Branch, thence south-southwest along highway to Baton Rouge.

Olive Branch post office, 2 miles south of, 10 feet west of plank road, on boundary line between East Feliciana and East Baton Rouge parishes, in top of stone post; aluminum tablet stamped "134 BR"	134.115
Fred, 3.5 miles south of, on plank road, 650 feet southwest of Shady Grove Church, 10 feet east of road; iron post stamped "75 BR"	75.075
Howell, 1.5 miles north of, on plank road, 300 feet south of south bridge over Cypress Bayou; iron post stamped "61 BR"	61.514

From Arbroth northwest along Texas & Pacific Ry. to New Roads, thence north to bench mark 160-3 opposite Bayou Sara.[1]

New Roads, west side of front door of courthouse; aluminum tablet stamped "39 BR"	39.697

BATON ROUGE QUADRANGLE.

[Latitude 30° 15′–30° 30′; longitude 91°–91° 15′.]

From Baton Rouge northeast to Poor Hill Church.

Baton Rouge, north end of lowest granite step of west entrance to the State capitol, 4 feet from front of the step and 4 feet from the baluster; bottom of square in granite step	60.390
Baton Rouge, post-office building on northwest corner of North Boulevard and Church Street, southeast of colonnade in front of building, in corner of water table; top of copper bolt leaded vertically	59.055
Baton Rouge, 3 miles from, 250 yards north of turn in road at milepost 3, on Comite road; iron post stamped "54 Adj 1903"	53.773

[1] A line was run also between Port Allen and Arbroth, but no standard bench marks were established.

Digitized by Google

	Feet.
Baton Rouge, 300 feet east of milepost 6, on Comite road, in front of J. E. Pratt's residence, corner of lot near road: iron post stamped "55 Adj 1903".	55.127
Poor Hill Church, on Comite-Baton Rouge road, in northwest corner of church yard; iron post stamped "52 Adj 1903"	52.057
From Baton Rouge southeast to St. Gabriel.	
Arlington, 150 feet north of cotton gin, 40 feet west of station, southeast corner of yard; iron post stamped "22 Adj 1903"	22.308
Gardere, 1,000 feet north of station, 40 feet west of railroad, 15 feet north of dirt road, 250 feet east of sugar refinery on Chadsworth plantation; iron post stamped "24 Adj 1903"	24.455
Bayou Paul, in front of Jos. Byrne's store, 100 feet northeast of road crossing, 150 feet southeast of station; iron post stamped "17 Adj 1903"	17.333
St. Gabriel, 100 feet southwest of station, 2 feet east of Mississippi River Commission post; iron post stamped "22 Adj 1903"	21.899
From West Baton Rouge south to Baton Rouge Junction.	
Cinclaire, 50 feet north of station, 30 feet west of track, 15 feet north of dirt road leading west, 0.5 mile from sugar refinery; iron post stamped "20 Adj 1903"	19.620
From Plaquemine southeast and east to St. Gabriel.	
Plaquemine, in northwest corner of courthouse; tablet stamped "Prim. Trav. Sta. No. 9, 30 Adj 1903"	29.686
Plaquemine, corner Main and Church streets, in southwest corner of court-yard; iron post stamped "27 Adj 1903"	26.773
Plaquemine, 3 miles south of, 1 mile west of levee, 0.25 mile east of railroad, on east side of old Tennessee sugar house (brick), E. J. Gay's plantation; iron post stamped "18 Adj 1903"	17.787
Plaquemine, 4 miles east of, on George Rice's plantation "Allemania," northwest corner of, corner of yard of negro cabin, 1 mile northwest of Allemania sugar house, 40 feet back of levee of Mississippi River, 10 feet west of road along levee; iron post stamped "27 Adj 1903"	27.577
From Poor Hill Church south to Foreman.	
Harelson's store, just across road west of store, north of east-west road, 8 miles east of Baton Rouge on Benton Ferry road; iron post stamped "51 Adj 1903"	50.555
Nesser, 40 feet north of post-office building, 100 feet west of residence of W. S. Martin, on clay cut road, 10 feet west of road: iron post stamped "34 Adj 1903"	34.569
Foreman, 1,000 feet south of post office, corner of negro church; iron post stamped "24 Adj 1903"	23.829
From Harelson's store east to Live Oak schoolhouse (spur line).	
Live Oak schoolhouse, on Perkins road, east side of schoolhouse; iron post stamped "45 Adj 1903"	44.437
From Gardere northeast to Middle Highland road, thence southeast to Kleinpeters's store, thence northeast to Nesser.	
Trajers Bridge, 0.3 mile south of, at T road intersection on Middle Highland road (Perkins road), 50 feet south of negro cabin; iron post stamped "30 Adj 1903"	29.825
Kleinpeter's store, on Perkins road; iron post stamped "40 Adj 1903" (marked 40 through mistake)	37.008

Digitized by Google

GROSSE TETE QUADRANGLE.

[Latitude 30° 15′–30° 30′; longitude 91° 15′–91° 30′.]

From Baton Rouge Junction to Plaquemine.

	Feet.
Baton Rouge Junction, 100 feet west of track, at southwest corner of hotel yard; iron post stamped "18 Adj 1903"	18.411
Plaquemine, 2.5 miles north of, west side of track, 40 feet from center of old levee, 100 feet north of bridge 88–A; iron post stamped "22 Adj 1903"	21.785

PORT VINCENT QUADRANGLE.

[Latitude 30° 15′–30° 30′; longitude 90° 45′–91°.]

From Foreman south to Dutchtown.

Hopevilla, across road from Dr. J. A. Violet's office, 0.25 mile south of post office; iron post stamped "25 Adj 1903"	24.755
Prairieville, 500 feet norh of Louisiana Ry. & Navigation Co.'s track, 3 miles south of Hopevilla, northwest corner of church; iron post stamped "22 Adj 1903"	21.776
Dutchtown, corner of warehouse opposite Picard's store; tablet stamped "Prim. Trav. Sta. No. 2, 18 Adj 1903"	18.199

WHITE CASTLE QUADRANGLE.

[Latitude 30°–30° 15′; longitude 91°–91° 15′.]

From Dutchtown southwest to Geismar.

Geismar, 2 miles east of, on Geismar & Picard's plantation, west side of road, inside field near fence, 10 feet north of road; iron post stamped "19 Adj 1903"	18.985
Geismar, 100 feet south of station, 40 feet west of track, near Mississippi River Commission post; iron post stamped "Prim. Trav. Sta. No. 3, 24 Adj 1903"	23.865

Harrisonburg, Lake Providence, St. Joseph, Tallulah, and Vicksburg 30′ quadrangles and several 7½′ subdivisions (Tensas drainage district).

EAST CARROLL, WEST CARROLL, CONCORDIA, MADISON, AND TENSAS PARISHES.

The elevations in the following list were determined by primary leveling extended from the various bench marks of the Coast and Geodetic Survey and the Mississippi River Commission precise-level lines.

The leveling was done in 1909, in the Lake Providence quadrangle by H. W. Peabody and T. A. Green; in the Tallulah and Vicksburg quadrangles by W. H. Gray and Green; in the Harrisonburg quadrangle by Green; and in the St. Joseph quadrangle by Gray, Green, and Peabody.

This list is not arranged according to 7½′ quadrangles. Gray's leveling was in the area of the 7½′ sheets named Millikens Bend, Mound, and Delta Point; Peabody's in Wilsons Point, Millikin, Baxter Bayou, Lake Providence, Longwood, Atherton, Waddill, and Delta Bridge; and Green's in Millikin, Ashton Bridge, Baxter Bayou, Atherton, Stamboul, Tallulah, IX, Mound, Delta Point, Kelloggs Landing, Ashwood, XVI, Newellton, Lake Bruen, Deltabridge, Dickard, Gumridge, Ferriday, Sycamore, and Natchez.

Digitized by Google

LAKE PROVIDENCE QUADRANGLE (EMBRACING ATHERTON, ASHTON BRIDGE, BAXTER BAYOU, MILLIKIN, STAMBOUL, AND WILSONS POINT 7½′ QUADRANGLES).

[Latitude 32° 30′–33°; longitude 91°–91° 30′.]

From point near Wilsons Point southeast and south along levee to Cottonwood.

	Feet.
Wilsons Point, in northeast corner of front yard of plantation dwelling; iron post stamped "109 LA"	109.148
Cottonwood store, 1.5 miles north of, west side of road, north end of loop in levee, in east root of 36-inch pin-oak tree; nail	108.67
Cottonwood, at southeast corner of store; iron post stamped "Prim. Trav. Sta. No. 31 108"	108.047

From point near Wilsons Point south, west, and north along levee road around Old River Lake to sec. 9, T. 23 N., R. 12 E.

St. Johns Church, northeast corner of, in west root of 36-inch cottonwood tree; nail	109.56
Old Keys residence, 1,200 feet north of, 300 feet east of levee, 200 feet northwest of negro cabin, on south side of road, at gate to second-class T road south through fields to Cottonwood Landing; iron post stamped "Prim. Trav. Sta. No. 30 1909 LA 112"	111.332
Foster's gin, 1,800 feet west of, north side of road, in south root of 36-inch pecan tree; nail	110.30
Brunett, 1 mile east of, north of road opposite road fork to Tyron, in front of Jacob Marcus's store; iron post stamped "Prim. Trav. Sta. No. 29 1909 LA 112"	111.750
Brunett post office, north side of road by blacksmith shop, in south root of 20-inch cottonwood tree; nail	111.28
Brunett, 1.4 miles west of, in southeast corner of forks of Shelburn and Levee roads; iron post stamped "Prim. Trav. Sta. No. 28 1909 LA 107"	107.182
Millikins, 2.2 miles south of, 1,500 feet north of sawmill, 60 feet west of road crossing at bridge 111, in southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 34 LA 1909 107"	106.414
Millikins, 160 feet west of station, 40 feet north of east-west road, southeast corner of store of J. S. Millikin; iron post stamped "Prim. Trav. Sta. No. 35 LA 1909 109"	108.680
Millikins, 1.7 miles north of, 1.2 miles south of Arkansas-Louisiana State line, on south edge of road leading west from Kilbourne, 50 feet west of crossing of St. Louis, Iron Mountain & Southern Ry.; iron post stamped "Prim. Trav. Sta. No. 36 LA 1909 111"	110.766

From Levee southwest to Shelburn.

Shelburn, at southeast corner of store building, 250 feet southwest of station; iron post stamped "Prim. Trav. Sta. No. 33 105"	104.743

From sec. 9, T. 23 N., R. 12 E., west and southwest to sec. 22, T. 22 N., R. 11 E.

Bayou Mason, 160 feet east of east end of Ashtons Bridge, 50 feet east of second-class T road north, on north edge of road; iron post stamped "105 LA 1909 Prim. Trav. Sta. No. 37"	105.259
Five points, in southwest corner of intersection of north-south and east-west roads, in root on north side of 20-inch red-oak tree; nail marked "128.35"	128.19
Kilbourne, 1.5 miles south of, 900 feet south of Y road junction, on east edge of Kilbourne-Oak Grove road, just south of lane to east, at Mr. Connell's; iron post stamped "Prim. Trav. Sta. No. 38 LA 1909 114"	113.584

Digitized by Google

	Feet.
Kilbourne, 2.3 miles south of, west side of road, 700 feet south of second-class road to west, in root on east side of 24-inch oak tree; nail marked "113.9"	113.77
Kilbourne, 4.2 miles south of, at north end of grass triangle, 100 feet north of four corners; iron post stamped "Prim. Trav. Sta. No. 39 1909 LA 118"	118.098
Kilbourne, 5.4 miles south of, on east side of road, 400 feet north of forks, in root on east side of 30-inch oak stump; nail marked "117.24"	117.05
Kilbourne, 7 miles south of, west of road, 12 feet south of northeast corner of fence, 125 feet west of unoccupied house; iron post stamped "Prim. Trav. Sta. No. 40 1909 LA 119"	118.369
Kilbourne, 8.1 miles south of, west side of road, 20 feet south of junction with road running northwest, in root on west side of 20-inch oak tree; nail marked "114.64"	114.44

From sec. 22, T. 22 N., R. 11 E., southwest to sec. 20, T. 21 N., R. 11 E.

Lanes Ferry, about 200 feet west of, iron bridge over Bayou Mason, at northwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 41 1909 LA 95"	94.755
Bridge over Bayou Mason at Lanes Ferry, 1.25 miles south of, east of road, near small bridge, in west root of 48-inch red oak; spike	95.76
Bridge over Bayou Mason at Lanes Ferry, 2 miles south of, west side of road, 600 feet north of house on east side of road, in west root of 20-inch hickory tree; spike	106.70
Oak Grove, 4 miles southeast of, 3.5 miles south of Lanes Ferry bridge, at northwest corner of forks of Floyd and Oak Grove roads; iron post stamped "Prim. Trav. Sta. No. 49 104"	103.873
Lanes Ferry bridge, 5 miles south of, 1 mile north of Corbin road, east side of road, in west root of 48-inch hickory tree; spike	103.36

From point 2 miles west of Corbin Ferry east to Fisher's sawmill and southwest toward Tensas Bridge.

Corbin Ferry, on north side of road about 150 feet west of Mason Bayou; iron post stamped "Prim. Trav. Sta. No. 50 92"	92.167
Corbin Ferry, 1 mile east of, south side of road, in north root of 24-inch thorn tree; nail	89.91
Fisher's sawmill, 3 miles west of, 2.5 miles east of Corbin Ferry, at northwest corner of road forks near store; iron post stamped "Prim. Trav. Sta. No. 58 95"	94.700
Fisher's sawmill, 2.5 miles west of, north side of road, 100 feet west of house, in south root of 12-inch hickory tree; nail	92.24

From Baxter Bayou west to Lanes Ferry.

Lake Providence, 7 miles northwest of, at south side of forks of Oak Grove and Shelburn roads, near head of Baxter Bayou; iron post stamped "Prim. Trav. Sta. No. 42 96"	96.172
Oak Grove, 6 miles east of, south side of road, 700 feet east of 40-foot bridge, in north side of 12-inch sweet-gum tree; spike	93.83
Oak Grove, 3 miles east of, in north root of 20-inch cottonwood tree at bend of road; spike	96.38

From secs. 30 and 31, T. 21 N., R. 11 E., about 2 miles west of Corbin Ferry.

Bayou Mason (at Corbin Ferry), 2 miles west of, 4.5 miles west of Pioneer, at southwest corner of crossroads; iron post stamped "Prim. Trav. Sta. No. 51 92"	91.494

Digitized by Google

From Lake Providence northwest along levee and Baxter Bayou to point near Shelburn.

	Feet.
Lake Providence, 0.35 mile above principal street and 350 feet back of inner base of berm of levee, 98.5 feet west from northeast corner of garden of Josephine Fitzgerald (colored); iron post, "Harmon 06" permanent bench mark 1	102.720
Lake Providence, at southeast corner of Lake and Davis streets, on half-inch bolt head in top of hydrant	104.88
Lake Providence, 5 miles northwest of, 90 feet north of north end of iron bridge, 640 feet east of St. Louis, Iron Mountain & Southern Ry. crossing Baxter Bayou road, near wire fence; iron post stamped "Prim. Trav. Sta. No. 27 1909 LA 106"	105.609

From Lake Providence northeast along levee to point near Benham post office.

Benham post office, 1.5 miles south of, in southwest corner of fork of Tyrone and Levee roads; iron post stamped "Prim. Trav. Sta. No. 32 105"	104.528

From Lake Providence south to point near Mount Zion, thence west 2 miles.

Lake Providence, in southeast corner of courthouse yard; iron post stamped "Prim. Trav. Sta. No. 26 105"	104.891
Desona, in fence corner on north edge of public road, 40 feet east of store and 100 feet west of public road crossing St. Louis, Iron Mountain & Southern Ry.; iron post stamped "Prim. Trav. Sta. No. 25 100"	99.864
Lake Providence, 5.5 miles southwest of, 80 feet southeast of house (negro cabin), in northeast corner of "Linnwood," plantation of Mr. T. J. Powell; iron post stamped "95 LA 1909"	95.405

From Fisher's sawmill northeast to Lake Providence.

Lake Providence, southwest of, northeast of Fisher's sawmill, on east edge of road running along east bank of Bayou Mason at junction with second-class T road east; iron post stamped "Prim. Trav. Sta. No. 43 97"	96.844
Sawmill, 2.2 miles north of, at west side of road, in east root of 20-inch thorn tree; spike	95.28

From Linnwood plantation south and west to Tensas Bridge.

Bear Wallow, 0.5 mile east of, at edge of woods, on north side of trail, in south base of 60-inch cypress snag; spike	88.54
Greenfield, 1 mile west of, about 300 feet east of fork, at north side of road, in south root of 30-inch oak; nail	95.13

From Tensas Bridge 7 miles southwest of Lake Providence.

Lake Providence, 7 miles southwest of, 300 feet east of Tensas Bridge, in northeast corner of road forks; iron post stamped "Prim. Trav. Sta. No. 47 92"	91.851

From Desona south along St. Louis, Iron Mountain & Southern Ry. to Talla Bena.

Desona, 2.8 miles south of, 200 feet southeast of milepost 515, on north edge of east-west road, 40 feet east of railroad crossing at Eastland; iron post stamped "97 LA 1909 Prim. Trav. Sta. No. 24"	96.513
Transylvania, 1,100 feet south of station, at T road north, 2 feet west of crossing sign at road crossing, on north edge of east-west road, 20 feet east of main track; iron post stamped "Prim. Trav. Sta. No. 23 LA 102 1909"	102.090
Alsatia, 900 feet south of station, 70 feet east of center of tracks, 80 feet southeast of road crossing, at northwest corner of Outpost Planting Co.'s store; iron post stamped "Prim. Trav. Sta. No. 22 90 LA 1909"	90.049

Digitized by Google

	Feet.
Roosevelt, 90 feet east of track, 60 feet south of public road, in angle of porch and front steps to McKenzie Mercantile Co.'s store; iron post stamped "89 LA 1909 Prim. Trav. Sta. No. 21"	88.935
Enoka, 550 feet southeast of station, at southwest corner of Baptist Church; iron post stamped "87 LA 1909 Prim. Trav. Sta. No. 20"	86.684
Enoka, 1.6 miles south of, 300 feet south of milepost 530; top of first bolt from south end on west side of railroad bridge 172, marked "87.08"	86.93

DELTA POINT QUADRANGLE.

[Latitude 32° 15′–32° 22′ 30″; longitude 90° 52′ 30″–91°.]

From Delta northwest along Vicksburg, Shreveport & Pacific Ry. to point near Mound.

Delta, top of cap on iron post at northeast corner of section house 7 (Mississippi River Commission bench mark)	90.541
Delta, at southwest corner of porch of small dwelling, facing Vicksburg, Shreveport & Pacific Ry. situated on railroad lot on the east corner of its junction with T Street, 100 feet north of main line; iron post stamped "Prim. Trav. Sta. No. 1 90 LA 1909"	89.638
Delta, 0.8 mile northwest of, 60 feet south of road crossing, 40 feet east of wagon road, in top of limestone post dressed to 14 by 14 inches at top and bearing the characters "U. S. C. S. 1878;" copper bolt (bench mark "Southwest Base")	87.792
Delta, 2.9 miles northwest of, 80 feet south of road crossing, west of milepost 3, on east side of wagon road, 10 feet west of ditch; iron post stamped "87 LA 1909"	87.457

TALLULAH QUADRANGLE (EMBRACING ASHWOOD, KELLOGGS LANDING, MOUND, MILLIKENS BEND, NEWELLTON, AND TALLULAH 7½′ QUADRANGLES).

[Latitude 32°–32° 30′; longitude 91°–91° 30′.]

From point near Mound northwest along Vicksburg, Shreveport & Pacific Ry. to Tallulah.

Mound, 150 feet south of railroad crossing, at northwest corner of Maxwell Yerger Co.'s store; iron post stamped "Prim. Trav. Sta. No. 2 90 LA 1909"	89.960
Thomastown, at southeast corner of F. P. Moore's store, 125 feet northwest of road crossing; iron post stamped "Prim. Trav. Sta. No. 3 92 LA 1909"	91.477
Barnes, at southeast corner of store of Gassaway & Warren, 80 feet north of road crossing of Vicksburg, Shreveport & Pacific Ry. (main track), 40 feet northeast of northwest corner of cotton platform; iron post stamped "Prim. Trav. Sta. No. 4 85 LA 1909"	85.366
Lums, 75 feet north of railroad crossing at milepost 15, 10 feet west of county road, 75 feet east of bayou, at southeast corner of fence; iron post stamped "Prim. Trav. Sta. No. 5 85 LA 1909"	84.709
Tallulah, in southwest corner of iron fence around Madison Parish courthouse; iron post stamped "Prim. Trav. Sta. No. 6 85 LA 1909"	85.104

From point near Talla Bena south along St. Louis, Iron Mountain & Southern Ry. to Tallulah.

Talla Bena, 100 feet east of railroad, 80 feet south of Caltharp's store, in corner of fence; iron post stamped "Prim. Trav. Sta. No. 13 87 LA 1909"	86.608
Mansford, 1 mile northwest of, 350 feet north of milepost 532; top of third bolt from south end of east guardrail on bridge 179; marked "U. S. B. M. 86.1"	86.03
Mansford, at northwest corner of W. H. Ward's store, 150 feet east of railroad; iron post stamped "Prim. Trav. Sta. No. 12 85 LA 1909"	84.550
Mansford, in front of station; top of rail	87.6

Digitized by Google

Tallulah, 3.2 miles north of, 40 feet west of railroad, at northwest corner of intersection of old tram road and railroad; iron post stamped "82 LA 1909 Prim. Trav. Sta. No. 11" ..... Feet. 81.800

From Tallulah south along St. Louis, Iron Mountain & Southern Ry. to Lake Bruen.

Laclede, 1,000 feet south of station, 60 feet southwest of public road crossing, in northwest corner of fence; iron post stamped "Prim. Trav. Sta. No. 10 85 LA 1909" 84.445

Laclede, 3.6 miles south of, opposite Kinderhook's sawmill, at northwest corner of section foreman's house, 100 feet southeast of old road crossing; iron post stamped "Prim. Trav. Sta. No. 9 80 LA 1909" 79.644

Alligator Bayou, 700 feet north of water tank, 25 feet east of center of railroad, at southwest corner of section foreman's house; iron post stamped "Prim. Trav. Sta. No. 66 80 LA 1909" 79.931

Quimby station, 95 feet due east of, center of east wall of, 40 feet north along fence line from center of public road leading to station, in corner of wire fence; iron post stamped "Prim. Trav. Sta. No. 67 84 LA 1909" 84.334

Somerset, 465 feet northeast of station, on west edge of public road, on south side of road leading to station, at corner of fence; iron post stamped "Prim. Trav. Sta. No. 72 86 LA 1909" 85.746

Somerset, in front of station; top of rail 85.25

Balmoral spur, 528 feet southwest of, 28 feet due east of trestle 233, southeast of railroad crossing, on south edge of public road, 5 feet east of crossing sign; iron post stamped "Prim. Trav. Sta. No. 73" 80.599

Franklin spur, 60 feet southwest of railroad crossing, 20 feet south of public road, in northeast corner of fence; iron post stamped "Prim. Trav. Sta. No. 74 80 LA 1909" 80.322

Newellton, 147 feet northeast of the northeast corner of railroad station, at northwest corner of old store, on north side; iron post stamped "Prim. Trav. Sta. No. 75 77 LA 1907" 76.832

Cohn's spur, 30 feet east of railroad crossing, 40 feet south of signboard, on south edge of east-west second-class road, 1 foot south of crossing sign; iron post stamped "Prim. Trav. Sta. No. 76 74 LA 1909" 73.729

From St. Joseph north and west to Lake Bruin (portion of line).

Raritan plantation, 200 feet east of plantation house, 250 feet south of Lake St. Joe, on south edge of main east-west road; iron post stamped "Prim. Trav. Sta. No. 81 79 LA 1909" 78.839

From Honeysuckle House east to bridge over Boiling Spring Bayou.

Saranac store, northwest corner, 1 mile southeast of Saddletree Lake, near T road south to Deltabridge; iron post stamped "71 LA 1909 Prim. Trav. Sta. No. 85" 70.774

Saranac store, 1 mile southeast of, 265 feet southeast of center of wagon bridge over Boiling Springs Bayou, at southwest corner of wire fence, in hub on 12-inch live-oak tree; nail marked "68.24" 68.23

From Talla Bena southwest and south along road to Tallulah.

Talla Bena, 110 feet east of railroad, 120 feet south of Coltharp & Co.'s store, in fence corner; iron post stamped "87 LA 1909 Prim. Trav. Sta. No. 13" .. 86.608

Talla Bena, 1.4 miles southwest of, on east side of road, 40 feet east of northeast corner of old church, in root of 8-inch locust tree; nail marked "85.2" 85.14

Inverness plantation, 1.1 miles southeast of, 5 feet east of levee, in root of 10-inch poplar tree standing in ditch; nail marked "81.4" 81.38

Digitized by Google

From Talla Bena east and south along road to Lums.

	Feet.
Talla Bena, 1.1 miles east of, 20 feet north of road, on north side of ditch, in root on north side of 36-inch elm tree; nail marked "U. S. B. M. 86.5"....	86.50
Buckhorn, 240 feet west of T road junction, 10 feet north of east-west road, 30 feet south of poplar tree; iron post stamped "Mississippi River Commission U. S. B. M. 1908".....	91.130
Ashley, 1 mile south of, 1,800 feet northwest of Hew's store, 50 feet northeast of T road junction, 5 feet south of fence; iron post stamped "Prim. Trav. Sta. No. 16 89 LA 1909".....	89.194
Lums, 80 feet north of railroad at milepost 15, 20 feet west of county road, south of fence corner; iron post stamped "85 LA 1909 Prim. Trav. Sta. No. 5".....	84.709

From Thomastown north along highways to Huon, thence east to Duckport, thence south to Mound.

Huon store, 300 feet northeast of, in center of triangle formed by Tallulah, Duckport, and Thomastown roads, in ground 1 foot above surface; iron post.....	92.029

From Millikens Bend southeast along levee road to Duckport.

Millikens Bend, 2 feet northeast of C. A. Chan's store porch, 0.2 mile northeast of levee; iron post stamped "Prim. Trav. Sta. No. 16 94 LA 1909"...	93.627
Millikens Bend, 2 feet northeast of northeast corner of C. E. Chan's drug store, set in ground 2 feet above surface, iron post not stamped; top of cap marked "Mississippi River Commission U. S.".....	94.930

From Lums south to Bluefront store, thence east to Mound.

Lums, 75 feet north of railroad crossing at milepost 15; iron post stamped "Prim. Trav. Sta. No. 5 85 LA 1909".....	84.709
Lums, 2.5 miles south of, 15 feet west of north-south road, 150 feet southeast of wagon bridge across Walnut Bayou, 25 feet south of fence corner; iron post stamped "86 LA 1909".....	86.398
Fortune Fork, 2 miles southeast of, 15 feet north of road, at southwest corner of fence, 200 feet west of footbridge over Walnut Bayou; iron post stamped "85 LA 1909".....	85.240
Bluefront store, 745 feet southeast of, south side of road, in root of chinaberry tree; nail marked "U. S. B. M. 90.6".....	90.517
Bluefront store, 0.9 mile southeast of, 35 feet south of main road, 40 feet west of road running south, at negro cabin; iron post stamped "Prim. Trav. Sta. No. 61 91 LA 1909".....	90.485
Coleman, 1.6 miles east of, 8 feet south of highway, 20 feet south of center of wagon bridge over Cross Bayou, 2 feet north of fence around F. L. Maxwell's residence; iron post stamped "88 LA 1909".....	87.525
Mound, south of, at forks of road, in root of pecan tree; nail marked "88.5"..	88.47
Mound, at northwest corner of Maxwell Yerger Co.'s store; iron post stamped "Prim. Trav. Sta. No. 2 90 LA 1909".....	89.860

From point 1.6 miles east of Coleman south to Crystal Springs plantation.

Coleman, 1.6 miles east of, 8 feet south of highway, 20 feet south of center of bridge over Cross Bayou, 2 feet north of fence around F. L. Maxwell's residence; iron post stamped "88 LA 1909".....	87.525
Cross Bayou bridge, 3.8 miles south of, in swamp on north side of lake, on north side of 48-inch cypress tree, in hub; nail marked "76.48".....	76.46

Digitized by Google

Crystal Springs plantation, east chimney of dwelling house of O. Christmas, second brick from southeast edge of chimney in twelfth course above ground; center of head of copper bolt leaded horizontally; Mississippi River Commission permanent bench mark "232" ..... Feet. 87.861

From Laclede east to Bluefront store.

Laclede, 2.8 miles southeast of, 60 feet west of road, 15 feet south of road running west at schoolhouse; iron post stamped "Prim. Trav. Sta. No. 63, 87 LA 1909" 87.056

St. James Church, at east end of front entrance, on north side; iron post stamped "Prim. Trav. Sta. No. 62 1909 LA 87" 87.057

St. James Church, 1.8 miles northeast of, west side of road, north end of woods, in east side of small locust tree; nail marked "85.13" 85.02

From St. James Church south and east to Chelula.

Cape plantation house, 400 feet east of, 0.7 mile north of Solomon's Temple Church, 30 feet east of center of Roundaway Bayou road, about center of large grass triangle at junction of second-class road leading east over plank bridge, about 200 feet west of center of bridge; iron post stamped "Prim. Trav. Sta. No. 64, 83 LA 1909" 82.833

Solomon's Temple Church, 0.4 mile south of, at forks of road, on east side of 12-inch live-oak tree 40 feet south of four corners, in hub; nail marked "81.9" 81.71

Chelula (3 miles southeast of Solomon's Temple Church), 150 feet north of levee, 20 feet east of road to north which crosses levee on a large ramp, about 2.5 miles above King post office; iron post (Mississippi River Commission bench mark "Chelula," in bad shape, loose and battered) 78.996

ST. JOSEPH 30′ QUADRANGLE (EMBRACING DICKARD, DELTABRIDGE, LAKE BRUEN, AND GUMRIDGE 7½′ QUADRANGLES).

[Latitude 31° 30′–32°; longitude 91°–91° 30′.]

From Lake Bruen station south along St. Louis, Iron Mountain & Southern Ry. and highway to St. Joseph.

Lake Bruen, 800 feet southeast of station, at southwest corner of second-class road to station; iron post stamped "Prim. Trav. Sta. No. 82, 76" 75.854

Osceola, 0.1 mile south of, 2 miles south of Lake Bruen station, on north edge of second-class road, 30 feet north of railway crossing, 40 feet southeast of trestle over irrigating canal, 2 miles north of St. Joseph station; iron post stamped "Prim. Trav. Sta. No. 77, 74 LA 1909 ..... 74.285

From St. Joseph southwest along St. Louis, Iron Mountain & Southern Ry. to Locust Ridge.

St. Joseph, near east projection of courthouse, 21 feet from northeast corner and 22 feet from southeast corner, 3 inches below ground, in box; marble post (Coast and Geodetic Survey bench mark) 72.110

St. Joseph, 600 feet east of courthouse, 45 feet west of old Masonic Hall, top of iron post (Mississippi River Commission primary bench mark "St. Joseph," Commission's elevation figures 74.771) 74.655

St. Joseph, 600 feet east of Tensas Parish courthouse, 225 feet west of levee, 42 feet west of southwest corner of old Masonic Hall, 25 feet south of Mississippi River Commission iron post, 25 feet southeast of 36-inch gum tree; iron post stamped "Prim. Trav. Sta. No. 78, 74 LA 1909" 74.029

St. Joseph, 0.7 mile west of junction of plank and levee roads, 0.3 mile east of railroad station, on south edge of plank road, in hub on 20-inch locust tree; nail marked "69.65" 69.52

Digitized by Google

	Feet.
Locust Ridge, 3.9 miles northeast of, 55 feet north of center of tracks, 20 feet west of second-class road, 225 feet southwest of telegraph pole marked "576–5"; iron post stamped "65 LA 1909"	65.268
Locust Ridge, 3.9 miles northeast of, 55 feet north of center of tracks, 20 feet west of second-class road, in base of 12-inch sweet-gum tree; spike marked "64.927"	64.86
Locust Ridge, 380 feet north of station, at southwest corner of porch of Locust Ridge plantation store; iron post stamped "Prim. Trav. Sta. No. 94, 69 LA 1909"	68.724
From point near St. Joseph along highway north and west to Lake Bruen (portion of line).	
St. Joseph, 2.8 miles northeast of, 1 mile south of Pleasant View Church; iron post stamped "Prim. Trav. Sta. No. 79, 78"	77.966
Pleasant View Church, 1 mile north of, in root of 16-inch oak tree; nail marked "73.93"	73.90
St. Joseph, 5 miles north of, 75 feet north of Catfish Bayou, 800 feet northeast of James Curry's house; iron post stamped "Prim. Trav. Sta. No. 80, 76"	76.413
From St. Joseph along highway northwest to Avondale, thence north and east to Osceola.	
Avondale, 1.2 miles north of, on east side of road, 175 feet northeast of Jerry Lewis's cabin, in hub on west side of 10-inch chinaberry tree which stands 18 feet east of a similar tree; nail marked "72.96"	72.83
From point 1.3 miles west of Osceola west toward Gold Bell Church (single spur line checked by secondary levels).	
Buckhorn, 0.4 mile southwest of, 30 feet south of dim road to west, on east side of road to south, in hub on root of 8-inch sweet-gum tree; nail marked "T. P. 70.11"	69.99
From Avondale along highway southwest to Oneonta, thence south to Locust Ridge.	
Avondale, 3 miles southwest of, main forks of road at Hubbard's bridge at junction of telephone lines, 4 feet northeast of center of grass triangle, 120 feet northeast of north end of bridge; iron post stamped "66 LA 1909"	66.310
Oneonta, 125 feet north of plantation house, south side of road, in hub on south side of 48-inch water-oak tree; nail marked "70.04"	69.88
Oneonta, 250 feet west of plantation house, 53 feet southeast of commissary, 3 feet south of telephone pole; iron post stamped "Prim. Trav. Sta. No. 88, 71 LA 1909"	70.663
Cross Keys store, set in southwest corner of crossroads at, 60 feet east to store door, 25 feet southeast to corner of ice house; iron post stamped "70 LA 1909 Prim. Trav. Sta. No. 89"	69.880
From Avondale along highway west to Deltabridge, thence southeast to Oneonta.	
Hunt's bridge, 69 feet west of south end, 30 feet northwest of T road junction; iron post stamped "Prim. Trav. Sta. No. 83, 73 LA 1909"	72.970
Hunt's bridge, 2.6 miles southwest of, north side of road, 200 feet north of cabin occupied by Hilliary Buford, in hub on bench on east side of 48-inch live-oak tree; nail marked "71.956"	71.81
Hunt's bridge, 2.7 miles west of, northwest corner of fence around Hilliary Buford's garden, 15 feet south of center of road, 40 feet south of row of four large live-oak trees and one pecan tree, 300 feet southeast of a large pecan tree standing alone on south edge of road; iron post stamped "72 LA 1909"	71.896
Hunt's bridge, 3.8 miles west of, north side of road, 1,000 feet west of road to north across bayou, in hub on south side of 48-inch pecan tree; nail marked "70.23"	70.08

Digitized by Google

	Feet.
Hunt's bridge, 4.3 miles west of, 35 feet northwest of T road junction, on south side of bayou, 400 feet south of large brick chimney at Daniel's cotton gin, in hub on root on southeast side of twin locust tree; nail marked "68.7"...	68.56
Deltabridge, 90 feet west of west end of iron bridge over bayou, 30 feet west of forks of road, 20 feet south of southeast end of doctor's office; iron post stamped "Prim. Trav. Sta. No. 87, 71 LA 1909".....	70.753

From Hunt's bridge along highway northwest to Gold Bell Church, thence south to Deltabridge.

Hunt's bridge, 69 feet southwest of south end of, 30 feet northwest of T road junction; iron post stamped "Prim. Trav. Sta. No. 83, 73 LA 1909".....	72.970
Gold Bell Church, 300 feet east of, 800 feet northwest of Crimea house, beside paling fence on east edge of road, near forks; iron post stamped "Prim. Trav. Sta. No. 84, 70 LA 1909".....	70.324
Gold Bell Church, 2 miles southwest of, 40 feet west of road, on east side of small levee, in hub on root of 48-inch cottonwood tree; nail marked "68.03".	68.03
Gold Bell Church, 3.2 miles southwest of, on east edge of road in woods, in west base of tall 48-inch gum tree; spike marked "68.61".....	68.62
Deltabridge post office, about 0.25 mile northeast of, 400 feet west of forks, north edge of main St. Joseph-Deltabridge road, in hub on line 26-inch gum tree; nail marked "T. P. 70.39".....	70.24

From Deltabridge along highway northwest to Hard Bargain, thence northeast to Saranac store, thence southeast to Gold Bell Church (portion of line).

Deltabridge, 90 feet west of west end of iron bridge over bayou, 30 feet west of forks of road, 20 feet south of southeast end of doctor's office; iron post stamped "Prim. Trav. Sta. No. 87, 71 LA 1909".....	70.753
Deltabridge, 2.9 miles north of, 993 feet north of Mayflower Bridge, on east edge of road, 110 feet south of road to west at schoolhouse, in hub on west side of elm tree 60 inches in diameter; nail marked "66.31".....	66.29
Deltabridge, 3.4 miles north of, at Hard Bargain plantation, 3 miles southwest of Saranac store, on west edge of road, 600 feet south of Hard Bargain house, 30 feet east of doctor's office, 20 feet south of road to west; iron post stamped "Prim. Trav. Sta. No. 86, 71 LA 1909".....	70.757
Gold Bell Church, 300 feet east of, on east edge of road, near forks; iron post stamped "Prim. Trav. Sta. No. 84, 70 LA 1909".....	70.324

From Vidalia along road northwest to trestle 11, thence south to Scotland plantation, thence northeast to Vidalia (portion of circuit).

Vidalia, on right bank in lot immediately back of lot on which stand courthouse and jail, 262.48 feet (80 meters) back of levee, 176.66 feet (54 meters) from upper back corner of courthouse, 79 feet (24.1 meters) from upper back corner of iron fence surrounding courthouse and jail (Coast and Geodetic Survey triangulation east base), in stone post 14 inches square; copper bolt (the figures 1878 are cut on the side next the river, and the letters "U S. Coast S." on the opposite side) (Coast and Geodetic Survey bench mark LXIII).....	61.427
Vidalia, in courthouse yard, center of cross in stone post 5 by 7 inches, 5 feet northwest of gallery at recorder's office (reference mark to base line).....	62.65
Vidalia, at southwest corner inside of iron picket fence around courthouse; iron post stamped "Prim. Trav. Sta. No. 103, 63 LA 1909".....	62.792

Digitized by Google

	Feet.
Vidalia, 0.3 mile northwest of courthouse, 1,483 feet (452 meters) back of levee along Trinity Street (now Concordia Avenue), on southwest side of street, 21.25 feet (6 meters) from center of street, 37 feet (11.3 meters) in front of the front tree of two large pecan trees standing about 130 feet apart, above upper side of road; top of iron post (Mississippi River Commission bench mark 132/3)	64.865
Taconey plantation, near, 5 feet north of telephone pole at angle in road, 25 feet north of gate, 100 feet southwest of top of levee at bend in levee, 150 feet west of gate across second-class road to south, 500 feet east of Taconey plantation house; iron post stamped "Prim. Trav. Sta. No. 102 LA 1909"	63.415
Scotland plantation, 250 feet west of plantation house, on south side of river road, directly opposite second-class road to north through line of cabins, in hub on root on northwest side of dead 20-inch cottonwood tree; nail marked "62.98"	62.867
White Hall plantation store, 50 feet east of the southeast corner of, 5 feet northeast of chinaberry tree on north edge of levee road, 60 feet northeast of road crossing White Hall Lake on a ramp; iron post stamped "Prim. Trav. Sta. No. 106, 62 LA 1909"	62.134
Vidalia, 175 feet southwest of St. Louis, Iron Mountain & Southern Ry. station, 110 feet southeast of Marx & Scharff's warehouse; top of bolt on dome of municipal water plug, marked "63.61"	63.46
Vidalia, on curbstone in front of Beer, Myers & Co.; chiseled square marked "63.39"	63.24

FERRIDAY AND SYCAMORE 7½′ QUADRANGLES.

[Latitude 31° 30′–31° 45′; longitude 91° 30′–91° 37′ 30″.]

From Vidalia along road northwest to trestle 11, thence south to Scotland plantation, thence northeast to Vidalia (portion of circuit).

Trestle 11, 1 mile southwest of, on east side of road, 65 feet south of two blazed oak trees, in hub on twin sweet-gum tree; nail marked "53.07"	53.01
Scotland plantation, 1.7 miles north of, east side of road, in hub on 26-inch sweet-gum tree; nail marked "52.38"	52.32

From point near Minorca northwest along road to Ferriday, thence south along railroad to Lucerna, thence northeast along highway to Scotland.

Minorca, 1.1 miles northwest of, at second-class road to south through gate, at railroad trestle 11, in root of dead stump 30 feet west of road junction; nail; mark on fence 10 feet south "B. M. 59.45"	59.384
Minorca, 2.1 miles northwest of, 3.5 miles southeast of Ferriday, at corner of wire fence, 15 feet east of southeast corner of negro church on south side of levee road; iron post stamped "Prim. Trav. Sta. No. 101, 63 LA 1909"	63.069
Sycamore store, 77 feet west of southwest corner of, 9 feet south of ditch, 210 feet back of bank of lake, 115 feet back of center of levee, about half way between store and gate to road leading back to plantation house; tile and pipe (Mississippi River Commission permanent bench mark "Sycamore") top of cap	66.056
Ferriday, 1,600 feet west of station, in northeast corner of wire fence surrounding public schoolhouse; iron post stamped "59 LA 1909 Prim. Trav. Sta. No. 100"	59.434
Ferriday, 50 feet west of railroad, 37 feet south of roadmaster's office (St. Louis, Iron Mountain & Southern Ry.), highest point on stopcock on water plug; mark on telegraph pole 20 feet northeast "B. M. 61.73"	61.76

Digitized by Google

	Feet.
Ferriday, 2.1 miles south of, 100 feet east of railroad, 450 feet northeast of milepost 197, 205 feet northeast of second-class road crossing, in northwest corner of wire fence around southern of two negro cabins, on property of Mr. Smith, of Texas & Pacific Ry., 20 feet east of 16-inch elm tree; iron post stamped "Prim. Trav. Sta. 108, 55 LA 1909"	54.922
Lucerna, 0.9 mile north of, 50 feet west of center of tracks, on west side of wire fence, 350 feet north of milepost 194; iron post stamped "51 LA 1909"	51.123
Bash station, 0.9 mile east of, 100 feet west of center of levee, 50 feet west of center of levee road, 15 feet north of T road leading west between Lucerna and Saughy plantations, 0.5 mile southeast of Lucerna plantation house; iron post stamped "63 LA 1909 Prim. Trav. Sta. No. 107"	63.018
Lucerna plantation, opposite the sixth milepost below Vidalia, 365 feet (111 meters) back of center of levee, 27.77 feet (9 meters) above center of a ditch which leads back past a metal-covered gin, 413.5 feet (124 meters) above a road crossing levee and running back past plantation house, about 250 feet above a string of cabins; tile and pipe (Mississippi River Commission permanent bench mark "Lucerna") top of cap on pipe	62.634
Scotland, 1.1 miles west of, 12 feet north of road, 5 feet south of fence, on top of cement and brick cistern; chiseled square marked "65.92"	65.82

Blanchard and Keithville quadrangles.

CADDO PARISH.

The elevations in the following list were determined by primary leveling and accord with the 1912 adjustment.

The leveling was done in Blanchard quadrangle in 1915 by C. S. Wells and F. W. Crisp and in Keithville quadrangle in 1915 by Crisp.

NOTE.—An error of 0.6 foot was adjusted in Wells line from Shreveport via Belcher and Oil City to Mooringsport.

BLANCHARD QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 93° 45′–94°.]

From Shreveport northwest along highway and Texas & Pacific Ry. to Belcher, thence west along highway to Oil City, thence south to Mooringsport.

	Feet.
Shreveport, 1.3 miles northwest of, on Shreveport and Belcher Pike, in northeast corner of floor of iron bridge over bayou; copper nail painted "179"	178.61
Shreveport, 3 miles northwest of, on Shreveport and Belcher Pike, 900 feet northwest of Texas & Pacific Ry. crossing, in north end of west rail of concrete culvert; bronze tablet stamped "176"	175.763
Shreveport, 5 miles northwest of, on Shreveport and Belcher Pike, 20 feet northwest of the 5-mile post, in telephone pole; railroad spike painted "175"	175.26
Twelvemile Bayou, in north end of east face of railroad trestle over; iron bolt painted "179"	179.04
Cash Point, 1 mile south of, on Shreveport and Belcher Pike, in center of east concrete rail; bronze tablet stamped "174"	173.662
Cash Point, in top of step of east entrance to railroad station; copper nail painted "181"	181.21
Cash Point, 1 mile north of, at road crossing, 50 feet west of track, in railroad crossing sign; railroad spike painted "174"	174.11
Pickett, 25 feet west of railroad track, 30 feet east of pike; iron post stamped "Prim. Trav. Sta. No. 8 181"	180.874

Digitized by Google

	Feet.
Pickett, 1 mile north of, 150 feet north of signpost, in telephone pole; railroad spike painted "176"	176.06
Pickett, 2.3 miles north of, on Shreveport and Belcher Pike, in center of east concrete rail over culvert; bronze tablet stamped "Prim. Trav. Sta. No. 9 177"	177.165
Dixie, 1 mile south of, on Texas & Pacific Ry., in northwest end of trestle 59 D; iron bolt painted "181"	181.27
Dixie, in northeast corner of station foundation; copper nail painted "185"	184.60
Hayti, 0.3 mile south of, on Shreveport and Belcher Pike, in center of east concrete rail over culvert; bronze tablet stamped "185"	185.094
Uni, 40 feet north of station, in signpost; nail painted "187"	186.41
Belcher, 4 miles south of, at railroad crossing, in board 6 feet west of center of track; copper nail painted "188"	187.82
Belcher, 30 feet south of station, 50 feet east of railroad; iron post stamped "Prim. Trav. Sta. No. 3 189"	188.996
Belcher, 0.7 mile west of, in southwest corner of iron bridge over Dooley Bayou in rail; nail painted "186"	185.40
Belcher, 1.7 miles west of, in northwest end of iron bridge over Horseshoe Bayou; nail painted "183"	183.08
Belcher, 3 miles west of, on north side of road, in telephone pole; railroad spike painted "175"	174.86
Belcher, 3.8 miles west of, in northeast end of bridge over bayou; top of 1-inch square iron bolt painted "177"	177.00
Black Bayou Ferry, 1 mile northeast of, 50 feet southwest of road forks, in root of 4-foot oak tree; copper nail painted "175"	174.93
Black Bayou Ferry, east side of, in root of oak tree; copper nail painted "173"	172.40
Black Bayou Ferry, 50 feet west of, in oak tree; copper nail painted "173"	172.92
Oil City, 3 miles southeast of, 50 feet northwest of intersection of road and oil pike line, in root of oak tree; copper nail painted "217"	216.92
Oil City, 1.5 miles southeast of, 250 feet southeast of Arkansas Gas Co.'s power plant, in center of top of iron well casing; iron bolt painted "215"	214.52
Oil City, 0.3 mile south of, on Kansas City Southern Ry., at road crossing, 12 feet northwest of center of track, in top of upright crosstie; copper nail painted "209"	208.21
Oil City, on south end of concrete ledge, in east face of Oil City Bank; bronze tablet stamped "206"	205.801
Oil City, 1 mile south of, on west side of railroad track, in base of milepost 537 of Kansas City Southern Ry.; spike painted "201"	200.51
Mooringsport, 1 mile north of, in northwest end of trestle A 538; top of iron bolt painted "199"	198.30
Mooringsport, in yard of house occupied by J. E. Cochran, in line of north fence, 200 feet east of northwest fence corner, 10 feet west of northeast fence corner, 100 feet northwest of northwest corner of residence, 40 feet southwest of T road, at south end of highway bridge over Ferry Lake; top of cap 4 inches underground on iron post over U. S. C. E. p. b. m. No. 3	187.450
Elevation of copper bolt set in limestone underground; U. S. C. E. p. b. m. No. 3	183.382
From point 3 miles north of Greenwood north along highway to Mooringsport.	
Greenwood, 4.7 miles north of, on Mooringsport road, in root of large oak in front of "Star Light" Church; copper nail and washer painted "215.2"	215.24
Greenwood, 6 miles north of, at T road to east, 20 feet southwest of intersection, on stump; copper nail painted "184.0"	184.01

Digitized by Google

	Feet.
Greenwood, 7 miles north of, 250 feet south of old "Sojourner" post office, in southwest corner of crossroads, in tree root; copper nail painted "199.4".	199.43
Greenwood, 8 miles north of, 0.5 mile south of Longwood, in southwest corner of crossroads 40 feet southwest of intersection; iron post marked "Prim. Trav. Sta. No. 6 263 1915"	263.453
Greenwood, 9 miles north of, 0.5 mile north of Longwood, in northwest corner of crossroads, in oak tree; copper nail painted "282.3"	282.24
Mooringsport, 8 miles south of, at intersection of Mooringsport-Greenwood road and Blanchard-Latex road, near northwest corner of sec. 2, T. 18 N., R. 16 W., on stump; copper nail painted "272.9"	272.96
Mooringsport, 6.3 miles south of, at T road north, south, and west; iron post stamped "Prim. Trav. Sta. No. 5 1915 288"	287.527
Mooringsport, 5 miles south of, at second-class road crossing, in stump of pine tree on west side of road; copper nail painted "315.5"	315.51
Mooringsport, 4 miles south of, on north end of wooden bridge; copper nail painted "297"	297.52
Mooringsport, 2 miles south of, on Greenwood road, at three corners road fork, 60 feet east of intersection of roads, in root of chinaberry tree; copper nail painted "296.05"	296.00
Mooringsport, 1 mile south of, at crossroads, 100 feet southeast of "St. Lee" Church, in southwest corner of crossroads; iron post, General Land Office section corner, stamped "Tps. 19 and 20 N., R. 16 W., secs. 35, 36, 2, and 1;" also "Prim. Trav. Sta. No. 4 297"	297.029

KEITHVILLE QUADRANGLE.

[Latitude 32° 15′–32° 30′; longitude 93° 45′–94°.]

At Shreveport.

Shreveport, in northwest corner of yard of the public building, 1.3 meters east by 0.5 meter south of fence corner and 28 meters north of northwest corner of building:	
Top of cap on iron post over U. S. C. E. p. b. m. No. 3	200.062
Elevation of copper bolt set in limestone underground	195.994

From Greenwood north along highway 3 miles.

Greenwood, 600 feet east of Texas & Pacific Ry. station, in south side of west abutment, 20 inches from south edge and 30 inches from east edge of concrete, in top of concrete abutment on Texas & Pacific Ry.; top of copper bolt ⅝ inch in diameter, projecting about ½ inch above the surface of the concrete (C. & G. S. b. m. "C"), 1912 adjustment	219.646
Greenwood, 1.5 miles north of, on west side of south end of wooden bridge over Cross Bayou; copper nail and washer painted "199" on bridge	198.89
Greenwood, 2.5 miles north of, in root of tree on east side of road painted "191.2"; copper nail and washer	191.21
Greenwood, 3 miles north of, at T roads northeast and west, 15 feet south of intersection of roads and 2 feet north of east and west fence line; iron post stamped "Prim. Trav. Sta. No. 7 1915 193"	192.932

Digitized by Google

Digitized by Google

APPENDIX.

ELEVATIONS ADJUSTED BY THE COAST AND GEODETIC SURVEY FROM PRECISE LEVELING.

Aiken, Alexander, Alta, Arcadia, Ashwood, Baskinton, Batchelor, Baton Rouge, Bayou Sara, Blanchard, Bonita, Bossier, Bougere, Boyce, Calvert, Campti, Chef Menteur, Columbia, Crichton, Delhi, Delta Point, Donaldsonville, Downsville, Drew, Eagle Bend, Farmerville, Ferriday, Fish Pond, Fordoche, Fort Adams, Forts, Frogmore, Gibsland, Glass, Gumridge, Hahnville, Haile, Hanna, Harrisonburg, Hosston, Keithville, Kellogg Landing, Lake Bruen, Le Compte, Mabel, Manifest, Marksville, Millikens Bend, Minden, Montgomery, Lake Jatt, Monroe, Mound, Mount Airy, Naff, Natchez, New Orleans, Odenburg, Plain Dealing, Point La Hache, Quarantine, Quebec, Ruston, St. Bernard, Sicily, Sycamore, Tallulah, Taylortown, Tooleys, Voorhies, Waterproof, West Delta, White Castle, and Winnsboro quadrangles.

ASCENSION, AVOYELLES, BEAUREGARD, BIENVILLE, BOSSIER, CADDO, CALDWELL, CATAHOULA, CONCORDIA, EAST BATON ROUGE, EAST CARROLL, EVANGELINE, FRANKLIN, GRANT, IBERVILLE, JEFFERSON, LA SALLE, LINCOLN, MADISON, MOREHOUSE, NATCHITOCHES, ORLEANS, OUACHITA, PLAQUEMINES, POINTE COUPEE, RAPIDES, RED RIVER, RICHLAND, ST. BERNARD, ST. CHARLES; ST. JAMES, ST. JOHN THE BAPTIST, ST. MARTIN, TENSAS, UNION, WEBSTER, WEST BATON ROUGE, WEST CARROLL, WEST FELICIANA, AND WINN PARISHES.

The following descriptions and elevations are taken from reports of the Coast and Geodetic Survey, and are republished by permission of the superintendent of that bureau. The bench marks were established by the Coast and Geodetic Survey, by the Mississippi River Commission, and by the Corps of Engineers, United States Army, from precise leveling, and were included in the 1912 adjustment by the Coast and Geodetic Survey. The elevations are likely to be changed only slightly by any future adjustment.[1]

AIKEN QUADRANGLE.

[Latitude 32°-32° 07′ 30″; longitude 91°-91° 07′ 30″.]

From Hard Times Landing north along Mississippi River to Point Pleasant.

	Feet.
Hard Times Landing, near, 180 meters back of junction of levees back of, on Hard Times Plantation, owned by D. Morris, 35 meters back of cabin occupied by Nick Walker (colored), and about 30 meters east of the line of the Nutt plantation (line is not marked) at inner base of small spur levee, 3 meters southeast of another spur levee running along south bank of Lake St. Joseph; tile and pipe (U. S. C. E. p. b. m. Hard Times):	
Bolt in tile	78. 396
Top of cap on iron pipe	82. 355

[1] For additional descriptions and elevations of bench marks along the Mississippi River, see Permanent marks, Cairo to the Gulf of Mexico, vols. 2 and 3, Mississippi River Commission, 1915.

Digitized by Google

Hard Times Landing, near, on southeast root of a 2-foot sycamore tree standing 8 meters below old spur levee and 13 meters above p. b. m. 272, tree blazed with a triangle facing the pipe, driven vertically into bench; top of a 20d. boat spike (U. S. C. E. t. b. m. 157) ..... Feet. 80. 118

Hard Times Landing, near, on the Hard Times Plantation, owned by D. Morris, 135 meters back of his residence, back of the old landing, 22 meters below the old spur levee leading back from the old landing to junction of levees, on lower bank of Lake St. Joseph, at upper edge of small clump of black locusts, 8 meters toward river and 13 meters below a small cabin, 2-foot sycamore tree stands north-northwest 13 meters and bears a triangle blazed facing the pipe, 380 meters east of junction of levees back of Hard Times Landing, the cap on the pipe is of the bench-mark form which has a square in center with the letters U. S. b. m. around it; tile and pipe (U. S. C. E. b. m. 272 C. & G. S.):

Bolt in tile 77. 372

Top of cap (put in in 1892 to replace old C. & G. S. p. b. m. 272, which was was broken, the connection being by ordinary levels) 81. 375

Hard Times Landing, near, in woods, 23 meters back of base of levee, in upper half of a piece of woods from which the brush has been cleared away, and once used as a levee camp ground; same tree bears levee bench mark or U. S. b. m. 133; a large square blaze is cut on levee side of tree, just 3 miles, measured along the levee, above junction of levees back of Hard Times Landing, on outer or east root of a 3-foot pecan tree; driven vertically into bench; top of boat spike (U. S. C. E. t. b. m. 161) 76. 745

Hard Times Landing, near, driven horizontally into levee face of a 3-foot pecan tree bearing temporary bench mark 161, copper plate beside spike gives elevation 101.34 feet above Cairo datum; top of head of galvanized spike (U. S. C. E. levee b. m. 133) 81. 716

Point Pleasant, near, about 2 miles northwest of Ship Bayou Landing, 120 meters below angle in the levee where it turns from west-southwest to east, and on the lower side of the neck of land below Lake Palmyra, approximately on the plantation line between Buck Ridge and Limerick (the Buck Ridge place is owned by Lucien Bland, the Limerick is run by Harry R. Guthrie, agent), at inner base of levee, 1 meter outside of fence; tile and pipe (U. S. C. p. m. b. Bland):

Bolt in tile 74. 911

Top of cap on iron pipe 78. 904

Point Pleasant, near, about ¾ mile back from Limerick Landing, on Lake Palmyra, 50 meters west of a cabin occupied by Neal Brooks (colored), on Limerick plantation, run by Harry R. Guthrie, agent, 32 meters back or south of inner base of levee on Limerick plantation; driven vertically into bench cut on southwest root of a lone 40-inch cottonwood tree; top of boat spike (U. S. C. E. t. b. m. 170) 80. 354

Point Pleasant, near, about 1 mile above the lower mouth of Lake Palmyra, 135 meters back of bank of lake at Burn Landing, in corner of cotton field on the Burn plantation, owned by Dr. McMillan, 2 feet inside of fences, 4 meters back of base of levee, and 10 meters above or west of center of road that crosses the levee and runs to plantation residence; tile and pipe (U. S. C. E. p. b. m. McMillan):

Bolt in tile 82. 224

Top of cap on iron pipe 86. 217

Digitized by Google

ALEXANDRIA QUADRANGLE.

[Latitude 31° 15′–31° 30′; longitude 92° 30′–92° 45′.]

Near Alexandria.

Rapides post office, about 5.6 kilometers below, on Mr. Marye's plantation, on a small levee 0.7 meter northwest of intersection of levee with division fence between Marye's and Cruikshank's plantations, and 4 meters southeast of angle in levee where it changes its course from southwest to southeast: Feet.

Bolt in stone underground (U. S. C. E. p. b. m. 72) 78.514

Top of cap on iron post 82.582

Alexandria, corner of Lee and Second streets, in south corner of courthouse yard, 26.7 meters southwest of southwest wall of courthouse and 21.3 meters southeast of southeast wall (U. S. C. E. p. b. m. 73):

Bolt in stone underground 73.750

Top of cap on iron post 77.818

Alexandria, in east corner of yard of Rapides Parish jail, on Lee Street between Fifth and Sixth streets, 3.2 meters southeast of southeast wall of jail and 10 meters northeast of northeast wall:

Bolt in stone underground 70.971

Top of cap on iron post (U. S. C. E. p. b. m. 74) 75.039

Alexandria, on top projecting layer of brick on east corner of courthouse (U. S. C. E. b. m. 3 Merrill 1871) 79.764

Alexandria, at river entrance of courthouse; top surface of lower iron plate of iron pedestal of southeast pillar of vestibule (U. S. C. E. b. m. 4 Merrill, 1871) 78.904

ALTO QUADRANGLE.

[Latitude 32° 15′–32° 30′; longitude 91° 45′–92°.]

From Rayville west along Vicksburg, Shreveport & Pacific Ry. to Gordon.

Rayville, in courthouse yard, 0.8 meter west of northwest corner of L in courthouse front, 0.9 meter north of north wall, and 61 meters south of center of track; top of iron post (U. S. C. E. p. b. m. 16) 80.686

Rayville, in face of L of courthouse front, 0.09 meter west of north door and 0.4 meter above floor line; hole in head of copper bolt (U. S. C. E. p. b. m. 17) 88.327

Rayville, near, on east bank of Boeuf River, in a southeasterly direction from Vicksburg, Shreveport & Pacific Ry. bridge, 70.6 meters south of center line of track and in direct range of first bent east of bridge approach, 12.5 meters from river bank, and 200 meters northeast of house:

Bolt in stone underground 80.384

Top of cap on iron post (U. S. C. E. p. b. m. 18) 84.452

Girard, east side of yard of Mrs. Brashear, 4 meters east and 4.5 meters south of southeast corner of brick chimney at east end of house and 26 meters south of center line of track:

Bolt in stone underground (U. S. C. E. p. b. m. 19) 79.560

Top of cap on iron post 83.628

Girard, in east face of brick chimney at east end of Mrs. Brashear's house at, 0.3 meter from north face of chimney and 1 meter above springing course:

Hole in head of copper bolt 86.588

Top of cap on iron post 90.656

Digitized by Google

Crew Lake station, southeast corner of garden lying in a northwesterly direction from railway platform at, 4.5 meters west of southwest corner of store at Crew Lake, on line of front of store, and 24 meters north of center line of track:

	Feet.
Bolt in stone underground (U. S. C. E. p. b. m. 21)	66.827
Top of cap on iron post	70.895

Gordon station, in northeast corner of yard on plantation of F. L. Whitehead, 14.7 meters north and 9.5 meters east of northeast corner of brick chimney at east end of an L-shaped cabin in same yard as bench:

Bolt in stone underground	64.665
Top of cap on iron post (U. S. C. E. p. b. m. 23)	68.733

From Rayville south along railroad to Big Creek.

Burke station, 8 kilometers below Rayville, about 50 meters east of track and about 10 meters north of indistinct road leading back to farmhouse; top of cap on iron post (U. S. C. E. p. b. m. Burke)	76.017
Archibald, in northwest corner of yard of J. J. Archibald, about 8 meters east of center of track and 30 meters south of depot; top of cap on iron post (U. S. C. E. p. b. m. Archibald)	77.257
Mangham, in southeast corner of yard of H. H. Nash and 40 meters west from track at a point about 10 meters south of south end of side track; top of cap on iron post (U. S. C. E. p. b. m. Mangham)	75.020
Big Creek, on property of John Guinn, about 70 meters east of the left bank of Big Creek where New Orleans & Northwestern Ry. crosses it and 25 meters south of track; top of cap on iron post (U. S. C. E. p. b. m. Big Creek)	74.783

From Archibald southwest to Landerneau.

Alto, in southwest corner of yard of E. H. Cook, on north side of Archibald road and 20 meters east of left bank of Boeuf River; pipe-flange bench (U. S. C. E. p. r. p. Alto)	74.376
Charlieville, near, at northwest corner of store at Harland Field, 20 meters from bank of Boeuf River and 75 meters above point where second bank joins main bank; pipe-flange bench (U. S. C. E. p. b. m. Harland)	74.275
Charlieville, on Stokes place opposite, 40 meters from right bank of Boeuf River, 25 meters from cabin, and 150 meters below Stoke's residence; pipe-flange bench (U. S. C. E. p. a. p. Stokes)	72.680
Charlieville, near, on Stokes place, on right bank of Boeuf River, 18 meters from main top bank and 20 meters upstream from cabin occupied by Henry Hunter; pipe-flange bench (U. S. C. E. b. m. p. r. p. Stokes)	72.841
Holly Grove Landing, in northwest corner of yard in front of Frank Hatch's residence, 60 meters northwest from residence, 100 meters east from landing, and 20 meters from left bank of Boeuf River; pipe-flange bench (U. S. C. E. b. m. p. r. p. Hatch)	70.548
Holly Grove, near, on property of C. M. Noble, 40 meters from left bank of Boeuf River, in corner of pasture where road from Holly Grove Landing turns down left bank of river after crossing neck of first bend below Holly Grove; pipe-flange bench (U. S. C. E. b. m. p. r. p. Noble 2)	68.002
Landerneau, near, in Richland Parish, on property of Elmore and King, 400 meters below cabin on Thomason place, Richland Parish, 5 meters west of road cutting across neck from Thomason place to Landerneau and 90 meters from left bank of Boeuf River; pipe-flange bench (U. S. C. E. b. m. p. r. p. Elmore)	66.824
Landerneau, opposite, in Richland Parish, on property of the Green Grove Church, on the east side of road crossing neck, 40 meters east of east wall of church, extended, and 15 meters south of south wall, extended; pipe-flange bench (U. S. C. E. b. m. p. r. p. Doucier)	68.819

Digitized by Google

ARCADIA QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 92° 45′–93°.]

From Simsboro to Arcadia.

Simsboro, in northwest corner of yard of Mr. Madden, 1 meter from street line, 1 meter from fence on west side of yard, and 24.5 meters from northwest corner of house:

	Feet.
Bolt in stone underground (U. S. C. E. p. b. m. 35)	320.626
Top of cap on iron post	324.694

Arcadia, in southeast corner of section-house yard, 6.7 meters south and 6.5 meters east of southeast corner of the most easterly of four section houses, 24 meters north of center of track:

Bolt in stone underground (U. S. C. E. p. b. m. 36)	369.294
Top of cap on iron post	373.362

ASHWOOD QUADRANGLE.

[Latitude 32° 07′ 30″–32° 15′; longitude 91° 07′ 30″–91° 15′.]

Near Ashwood.

Ashwood, near, about ¼ mile back of Ashwood Landing store and post office, which is on the bank of Lake Palmyra, 170 meters back of the levee; the tree is the oak that is nearest the northwest corner of a large grove of inclosed oak trees and is about 50 meters east or toward river or lake from the house of J. G. O'Kelly, 26 meters east of permanent bench mark Somerset, on the property of Perkins estate, known as Somerset plantation, on the northeast root of a 3½-foot water-oak tree; top of boat spike driven vertically into bench (U. S. C. E. t. b. m. 175) 85.991

Ashwood, near, on the Somerset plantation, on right bank of Lake Palmyra, 440 meters back of Ashwood Landing store and post office, 190 meters back of levee, in the northeast corner of lot surrounding the house of J. G. O'Kelly and 3 feet from either fence, a large grove of inclosed oak trees lies between lot and levee; tile and pipe:

Bolt in tile (U. S. C. E. p. b. m. Somerset)	83.189
Top of cap on iron post	87.185

Ashwood, near, about 1,200 meters above Somerset or Ashwood Landing, 20 meters back of inner base of levee, 40 meters above angle in same, in front of cabin occupied by Joseph Handy (colored) on Somerset plantation, in fence line at upper end of gate, driven vertically into bench cut on the east root of a 30-inch gum tree, which bears a triangle blazed above bench mark; top of 20d. boat spike (U. S. C. E. t. b. m. 176) 85.167

BASKINTON QUADRANGLE.

[Latitude 32° 15′–32° 30′; longitude 91° 30′–91° 45′.]

From Carpenter west along railroad to Rayville.

Carpenter station, in southeast corner of yard of cabin standing opposite railroad platform, 15.4 meters north of center of track and 23.8 meters southeast of southeast corner of cabin:

Bolt in stone under ground (U. S. C. E. p. b. m. 14)	86.752
Top of cap on iron post	90.820

Holly Ridge, in yard of residence of W. F. Winstead, 23.4 meters south of front line of gallery, 1.8 meters west of main door to house, and 18.3 meters north of center line of track:

Bolt in stone underground (U. S. C. E. p. b. m. 15)	85.361
Top of cap on iron post	89.429

Digitized by Google

BATCHELOR QUADRANGLE.

[Latitude 30° 45′–31°; longitude 91° 30′–91° 45′.]

From Morganza north along levee to Red River Landing.

	Feet.
Raccourci, about 1,000 meters below, about 375 meters below a Catholic Church, on the north side of the road, behind the levee, on the northwest root of an 18-inch sycamore tree; wire nail (U. S. C. E. t. b. m. 38).....	37. 648
Raccourci, in the yard of Ed. Lacour's residence, a little above and back of the levee from the store and post office, on the south root of a 2-foot pecan tree, 58 meters in front of the house, on the upper side of the walk; wire nail (U. S. C. E. t. b. m. 37).....	39. 498
Raccourci, at the new house of Edgar Lacour, a little above and back of levee from the store and post office, under the top front step to the gallery, about 1 foot to the left of the center; it was in front of the old house; bottom of a square hole cut in the top of a stone monument (U. S. C. E. p. b. m. XLIII)..	38. 773
Raccourci, near, about 3,000 meters above the residence of Edgar Lacour (distance taken along the levee); top of the period after the date, 1895 on levee bench mark at the top edge of the levee at a prominent angle (U. S. C. E. t. b. m. 35).....	52. 395
Lacour, near, on the Favorita plantation, about 15 meters inside of the northwest corner of the yard fence of Mr. V. Lacour's residence, on the north root of a 2-foot china-berry tree; wire nail (U. S. C. E. t. b. m. 33).....	46. 965
Williamsport, 2½ miles below the town of, on Old River, 1¾ miles above the Ennis oil mill, 220 meters back of fence, back of road, back of levee, back of Old River, at the house of Dr. A. A. Batchelor, at the lower side of the steps, in the angle where they join the gallery on the front of the house; bottom of a square hole cut in top of stone (U. S. C. E. p. b. m. XLIV).....	45. 006
Williamsport, on Old River, 30 meters south of the blacksmith shop at the lower end of the town, on the south root of a 4-foot cottonwood tree on west side of road, back of levee; wire nail (U. S. C. E. t. b. m. 22).....	48. 848
Smithland, near, about 400 meters below the house occupied by Mr. A. J. Noland, on the east root of a 2½-foot pecan tree standing 3 feet west of north and south hedge fence on west side of road behind levee, the tree stands where bench mark 150/4 should be, the bench mark pipe was pulled up and found lying by the side of the road; wire nail (U. S. C. E. t. b. m. 20)..	49. 577
Smithland post office, 780 meters below, 300 meters below where the road crosses the levee leading south from the landing at the plantation residence owned by Mr. Archie D. Smith and occupied by Mr. A. J. Noland, in the northeast corner of the yard, 1 meter from each fence, 30 meters north of the end and 4 meters east of the prolongation northward of a row of 6 large live-oak trees:	
⅜-inch copper bolt leaded into a vitrified tile below the surface of the ground.....	44. 075
Top of cap (U. S. C. E. p. b. m. Smithland).....	48. 058
Smithland, northeast of the warehouse in rear of which is Smithland post office, 22 meters back of the right bank of the river, in a lot 3 meters north and west, respectively, of two fences; bottom of a square hole cut in the top of a stone monument, marked B ⊡ M (U. S. C. E. p. b. m. XLV)..	48. 599

U S
1880

Digitized by Google

Smithland, about 1,300 meters above, on edge of the borrow pit at the back edge of the road back of the levee opposite a prominent angle in the levee at junction of the old levee leading southeast toward the river, on face toward the river of 5-inch thorn tree; wire nail (U. S. C. E. t. b. m. 17)..... Feet. 47.195

Red River Landing, just to the left of gate as you enter the front yard of Mr. Rodech's residence, back of levee:

Copper bolt in a limestone slab, under the ground, with an iron post on top (U. S. C. E. b. m. W) (Ewens, 1890)..... 41.010

Top of cap on iron post..... 45.079

Red River Landing, nearly in front (a little below) of Mr. G. W. Reagan's store on face toward the river of a large cypress; wire nail (U. S. C. E. b. m. B) (Ewens, 1892)..... 45.495

Red River Landing, on little knoll directly back of Mr. G. W. Reagan's residence, on large sycamore tree; wire nail (U. S. C. E. b. m. D.) (Ewens, 1896). 49.025

Red River Landing, on the right bank about 1 mile above, 154 meters below the Catholic Church, in line with the center lane running back from the river, just above the wagon road crossing the levee, on inner slope of levee, 5 feet above the base; a 6 by 6 inch limestone monument (U. S. C. E. b. m. 149/3)..... 52.270

Red River Landing, near, on the right bank, 840 meters above b. m. 149/3, 600 meters above the mouth of Old River (or Red River), 35 meters back from right bank of Old River, on the east root of a 4-foot willow tree; wire nail (U. S. C. E. t. b. m. 13)..... 43.825

Red River Landing, near, on Carrs Point plantation, owned by Lewis Trager, 1 mile above the mouth of Old River (or Red River), in the line of fence running east and west on the south side of the road running in front of the cabins, 257 meters back from the right bank and 9½ meters south of south line of cabins, and in the top of 6 by 6 inch marble monument projecting 10 inches from the ground; top of a copper bolt, in monument marked thus: U S ⊙ N O (U. S. C. E. p. b. m. Carrs Point)..... 52.316

Red River Landing, near, in Concordia Parish, 1½ miles above Carrs Point Landing, about 230 meters below a small levee standing square with the river bank, 10 meters back of main right bank and 2 meters back of road, on the base of a 15-inch sycamore tree, on face toward the river; wire nail (U. S. C. E. t. b. m. 9)..... 46.342

Tarbert Landing, Miss., opposite, in Concordia Parish, La., 2,500 meters below precise bench mark L, 5 meters from the top of the right bank on side toward the river of a 2½-foot locust tree; wire nail (U. S. C. E. t. b. m. 6)..... 50.499

Point Breeze, about 2 miles below, on land of B. M. Lemley, of Vicksburg, Miss., 60 meters above and 76 meters back of a 1½-story house on road, top of right bank, 21 meters above the lane running back from the river, 7 meters back of turn of row or headland in cotton field, 18 meters toward the river from the corner of garden, in the top of a stone monument 14 inches square on top, set flush with the ground; the top of a copper bolt (U. S. C. p. b. m. L=Triangulation station S. W. Base)..... 53.130

Smithland, 1,100 meters south of, on side of hedge on main road by side of levee, 110 meters south of house occupied by Simon Smith on George Bienvenue's place:

Bolt in stone..... 46.525

Top of cap (U. S. C. E. M. R. C. b. m. 150/4)..... 50.593

Digitized by Google

Water Valley Landing, near, on Tom Carruth's plantation, 25 meters east of wood line fence, 338 meters west of cabin occupied by William Fields (colored), and 375 meters west of cabin occupied by M. Laborde; witnessed by three blazed hackberry trees as follows: First, 1 meter diameter, 66° 30′, 8 meters; second, 0.6 meter diameter, 328° 40′, 3 meters; third, 0.6 meter diameter; 271° 25′, 11 meters, all on right bank of Old River and right bank of the Atchafalaya River:

	Feet.
Bolt in stone underground (U. S. C. E. p. b. m. 90)	42.687
Top of cap on iron post	46.755

Merrick post office, near, at corner of fence around cabin occupied by Sam Morris on D. T. Merrick's plantation, and 285 meters south of levee:

Bolt in stone underground (U. S. C. E. p. b. m. 91)	44.541
Top of cap on iron post	48.609

Barbre Landing, near, on S. Barbre's plantation, on west side of hedge on west side of land dividing S. Barbre's and George Keller's plantations, about 125 meters south of levee and 99 meters southeast of cabin occupied by Kate Watson (colored) and 273 meters south of S. Barbre's residence:

Bolt in stone underground (U. S. C. E. p. b. m. 92)	44.806
Top of cap on iron post	48.874

Barbre Landing, about 780 meters (measured along road) southeast of, cemented in top of marble post (15 by 15 centimeters) about 13 meters from levee in corner of fence; top of copper bolt, marked "U.S.●N.O." (U. S. C. E. p. b. m. 93) 49.741

Barbre Landing, about 1,275 meters (measured along road) southeast of, in front of George Heller's plantation at corner of fence and 13 meters from levee, cemented in top of marble post (15 by 15 centimeters); top of copper bolt, marked "U S ○ N O". (U. S. C. E. p. b. m. 94) 50.400

BATON ROUGE QUADRANGLE.

[Latitude 30° 15′–30° 30′; longitude 91°–91° 15′.]

From St. Gabriel north to West Baton Rouge.

St. Gabriel, on the Yazoo & Mississippi Valley R. R., on a small ridge between two small ditches, 1 meter north of the fence along the south side of the road, at the east end of the lane leading from the river bank to the railroad station, 31 meters west of the southwest corner of the depot, 46 meters west of the main railroad track, 35 meters from the corner of the fence on the west side of the right of way, 10 meters from a 24-inch hackberry tree, and 3 meters south of an 18-inch honey-locust tree, the trees are marked with a triangular blaze:

Tile marked "Triangulation 1895"	17.904
Top of cap, marked "U. S. p. b. m. 1891"	21.867

Sunshine, near, on Willow Glen plantation, on the east side of the road at the foot of the levee, 6 meters north of the gate on the crossroad from the public road to the railroad, 11 meters north of the northwest corner of the front yard of the main house, in the west root of a 24-inch pecan tree; the head of a spike (U. S. C. E. t. b. m. 22) 25.463

Sunshine, near, at Forlorn Hope Landing, on the left bank of the river, 10 meters back of the levee, 145 meters in front of Grenada sugarhouse, 2 meters east of the southwest corner of a yard just outside of the fence along the road, and 65 meters above the tramway running from the sugarhouse to the levee, in the top of a granite post, which was reported in good condition in 1897; bottom of square hole (U. S. C. E. p. b. m. XXIV) 25.991

Digitized by Google

Sunshine, near, in the top of a limestone post on the left bank, in a back yard, 11 meters north from the northeast corner of kitchen, 17½ meters northwest of a 30-inch sycamore tree, stone in good condition (1897); copper bolt in limestone post (U. S. C. E. b. m. 179/2) ..... Feet. 25.676

Burtville, near, on the left bank of the river, opposite Manchac Point, 450 meters east of the Yazoo & Mississippi Valley R. R., about 75 meters southeast from a house; and consists of a flat stone and iron pipe. (In 1897 it was reported that the stone was in good condition, but the cap was gone from the pipe) (U. S. C. E. b. m. 175/1) 19.455

Baton Rouge, near, at the south end of the Baton Rouge base line, the stone is 4 feet under the inner or east slope of the levee, 10 feet from the inner base of the levee, 20 meters below the angle in the levee, 10 meters down the river from the plantation line on which stands a 14-inch pecan tree in line of fence along road, 2 meters down the river from a point opposite an 18-inch hackberry stump 5 feet high, which stands on the opposite side of the road 10 meters from the bench mark, and is blazed with a triangle; a pecan tree blazed with triangle is 14.8 meters from the bench mark, a 4-foot pipe was placed over the copper bolt in the center of the stone in 1897, its cap is marked "U. S. P. B. M. 1891" and just shows above the slope of the levee. (The bench mark is not of any value as a bench mark on account of the great weight upon it, especially during high water when the levee is thoroughly saturated) (U. S. C. E. p. b. m. XXIX):

Bolt in top of a limestone monument 14 inches square 27.575

Top of cap 31.571

Baton Rouge, about 4 miles below, on the left bank of the Mississippi River, on Arlington plantation, about 120 meters west of the levee, 40 meters from the river bank; blazed trees: 40-inch live oak 10 meters southeast, 40-inch live oak 20 meters northeast, in the top of a marble monument which is 6 inches square at the top; bottom of a small square cavity. (Monument in good condition in 1897) (U. S. C. E. p. b. m. XXVIII) 30.453

Baton Rouge, about 700 meters south of the city limits of, at the north end of the Baton Rouge base line, 80 meters west of the Yazoo & Mississippi Valley R. R., 40 meters east of the levee, in a truck patch, 2 meters north of a small ditch, 200 meters below a sugar mill which stands outside of the levee, in the top of a limestone monument 14 inches square, marked with "U. S." on the north face and "1880" on the south face, which was 6 inches above ground and in good condition in 1897; the top of a copper bolt (U. S. C. E. p. b. m. XXX) 29.340

Baton Rouge, at the base of the levee, 90 meters below the south side of South Boulevard, on the top of a 6 by 6 inch marble stone marking the southwest corner of the city limits of Baton Rouge; the top of the stone is sloping and is marked [CITY LIMITS 1874]; the highest part inside of the upper part of the figure 8 (U. S. C. E. p. b. m. City Limits) 30.535

Baton Rouge, on the top of the cast-iron coping of the brick foundation for the iron fence on the west side of the capitol grounds, on the southwest corner of the pedestal under the seventh iron post south of the northwest corner of the grounds, marked U S E (75) The rod was held between the apex of the angle and the straight line (U. S. E. 2) 34.324

Baton Rouge, on the north end of the lowest granite step of the west entrance to the State Capitol Building, 4 inches from the front of the step and 4 inches from the balustrade; bottom of square hole (U. S. C. E. t. b. m. 1) ... 60.390

Digitized by Google

Baton Rouge, a bench mark of the United States Engineers, under the center of the west side of the tower on the north side of the west entrance to the State Capitol Building, directly under window in the west face of the tower, 27 inches above the ground, 5 inches above the top granite foundation stone, directly over and 29 millimeters above the horizontal furrow of mark (⋀) cut in the face of the stone, the edge is at the base of the molding cut in the stone; the top edge of the marble foundation stone (U. S. C. E. p. b. m. XXXI) ..... Feet. 62.149

Baton Rouge, in the top of the southeast corner of the pedestal under the column at the southeast corner of building B in the university campus (old barracks); top of a copper bolt marked P B M ⊙ U S (U. S. C. E. p. b. m. Barracks) 58.481

Baton Rouge, in the north root of a live-oak tree on the south line of a small park in the center of North Boulevard, at its intersection with St. Louis Street, opposite city hall; top of wire nail (U. S. C. E. t. b. m. 2) 56.243

Baton Rouge, on the Government post-office building on the northwest corner of North Boulevard and Church Street, in the corner of the water table at the southeast corner of the colonnade in front of the building, 1,414 millimeters above the granitoid pavement and 100 millimeters from the southeast corner of the water table; the top of a copper bolt, marked U S ⊙ P. B. M. (U. S. C. E. p. b. m. post office) 59.055

Baton Rouge, on the south side of a small park in the center of North Boulevard, on line with center of Church Street, 36.6 meters from the southeast corner of the post-office building, 20 meters east of the band stand in the park, and 30.7 meters from the southwest corner of North Boulevard and St. Ferdinand Street and about 190 meters east of the State Capitol Building; tile, marked "1893" and cap of the iron pipe is marked "1897" 52.024

West Baton Rouge, 90 meters back of the levee, 190 meters back from the right bank of the river, about 200 meters above a point directly opposite the State Capitol Building, about 400 meters below the ferry landing, in the flower garden in front of a plantation house (the plantation house was owned by J. H. Gay in 1880); the stone is 1 foot above ground and in good condition (1897); in the center of a granite post; bottom of square hole (U. S. C. E. p. b. m. XXXII) 28.271

West Baton Rouge, near, on Homestead plantation, in front of the residence of J. H. Hiss, 1 meter from the yard fence, halfway between the front gate and the south line of the yard, in the road back of the levee, in the west root of a 2½-foot live-oak tree; wire nail (U. S. C. E. t. b. m. 90) 28.750

West Baton Rouge, near, on Poplar Grove plantation, on the river side of the new levee, at its base, and 35 meters below the prolongation of the fence along the south side of the yard around the residence of Mr. Auguste Lesseps; copper bolt in a stone post, about 3 inches above ground (U. S. C. E b. m. 170/3) 32.546

West Baton Rouge, on Poplar Grove plantation, on the downstream side of the front steps to gallery of the plantation residence, occupied by Mr. Auguste Lesseps, agent for Mrs. Harris, owner; 0.4 meter below the downstream outer edge of the steps, and 1.14 meters out from the face line of the brick pillars under the gallery:

⅜-inch copper bolt leaded into a vitrified tile below surface of ground ... 28.192

Top of cap (U. S. C. E. p. b. m. Poplar Grove) 32.185

Digitized by Google

West Baton Rouge, near, on Favrot plantation, 103 meters below the lower edge of the residence of Mr. Favrot, outside the fence, in the east root of a large live-oak tree standing inside of a fence back of the road back of the levee; wire nail (U. S. C. E. t. b. m. 87) ..... Feet. 31.102

BAYOU SARA QUADRANGLE.

[Latitude 30° 30′–31°; longitude 91°–91° 30′.]

From Lobdell northwest along levee to Brooks.

Lobdell, near, on Belair Point, back of the road, back of the levee, back of the high-water gage 36, one-half meter back of the fence, in the root of an 8-inch tree; wire nail (U. S. C. E. t. b. m. 85) 30.236

Lobdell, near, on Viola plantation, about 250 meters below stone line No. 169, about 2 meters west of the east yard fence and 44 meters east of the entrance to the plantation residence, about 1 meter from the inner base of the levee, in the south root of a 3-foot live-oak tree with top cut off, standing in the road; wire nail (U. S. C. E. t. b. m. 84) 30.358

Lobdell, on Viola plantation, 840 meters from the levee and on the south bank of a large ditch, 359°, 572 meters from the sugar house:

Flat stone and iron pipe (U. S. C. E. t. b. m. 169/4) 24.485

Top of cap 29.557

Lobdell, near, on Belmont plantation, in front of the pillar at the northwest corner of the house of Mr. A. Guesnard; granite post (U. S. C. E. p. b. m. XXXIII) 30.594

Lobdell, near, at the end of the hedge which forms the dividing line between Belmont and Lobdell plantations, at the side of the road, in an osage-orange stump; wire nail (U. S. C. E. t. b. m. 83) 31.749

Lobdell, 7 meters back of the rear corner of G. W. Ory & Co.'s store and Lobdell post-office building, on the downstream side of the lane leading back from the river, in the root toward the river of an osage-orange stump standing one-half meter from the fence; wire nail (U. S. C. E. t. b. m. 82) 29.285

Lobdell, near, 30 meters upstream from the road crossing the levee and leading back to the Allendale sugar mill, on the upstream root of an 8-inch china-berry tree just inside of fence back of the road back of the levee; wire nail (U. S. C. E. t. b. m. 80) 27.267

Lobdell, near, 30 meters back of the fence back of the road back of the levee, 64 meters back of center of levee, 48 meters west of the road which crosses the levee and leads back to the sugar mill on Allendale plantation owned by Mr. Martin Kahoa, 14 meters south of the east and west fence which runs back of the first cabin nearest the road, in the southwest corner of the north portion of the mule lot, 0.47 meter east of the fence, 0.45 meter north of the northwest corner of the large barn, 9.3 meters west of the cistern:

⅜-inch copper bolt leaded into a vitrified tile below the surface of the ground (U. S. C. E. p. b. m. Allendale) 25.505

Top of cap 29.472

Grassmans Landing, about half a mile above the store and post office of Devall at, in front of the house of Mr. B. Chamberlain, jr., a granite post (U. S. C. E. p. b. m. XXXIV) 31.345

Devall, near, on Batture plantation, 65 meters northeast of the dividing line between Batture and Clarkland plantations, on the south side of a live-oak grove in front of Mr. A. M. Kean's residence, in the east root of a 2½-foot pecan tree standing in line with the fence back of the road back of the levee; wire nail (U. S. C. E. t. b. m. 75) 33.251

Digitized by Google

Devall, near, on Solitude plantation, 240 meters below the square angle in the levee (at high-water gage 38) where it leaves the river and turns south across the point toward Devalls Landing; on the south side of the road, 9 meters south of the garden fence around the house of George Williams, (colored), and 50 meters west of the levee, midway between two pecan trees, the nearest ones toward the levee in a row of three, distant 10 meters from a triangular blaze 4 feet above the ground on each, and facing the bench mark:

	Feet.
⅝-inch copper bolt leaded into vitrified tile, below the surface of ground (U. S. C. E. p. b. m. Solitude)	29.478
Top of cap	33.425

Devall, near, on Solitude plantation, 11 meters east of permanent bench mark Solitude, on the south root of 3-foot pecan tree, the easterly one in a row of three; wire nail (U. S. C. E. t. b. m. 74) 32.651

Devall, near, on Solitude plantation, on the side toward the river of a sycamore tree standing inside of the yard fence of James Price (the observer of high-water gage 38), 15 meters north of the northwest corner of the house; wire nail (U. S. C. E. t. b. m. 73) 32.438

Devall, near, about 1,500 meters above the square angle in the levee where high-water gage 38 is situated, on side toward the river of a large cottonwood tree, with top broken off, standing back of the road back of the levee; 84 meters below the corner of the fence around the field in which stands a large cottonwood tree; wire nail (U. S. C. E. t. b. m. 72) 30.440

Walls, near, about 375 meters above the residence on Alford's Rosehill plantation, nearly opposite the mouth of a lane on the south side of which is a church in a field; on a live-oak stump standing in the middle of the road back of levee; wire nail (U. S. C. E. t. b. m. 70) 30.827

Walls, near, about west of Highland Landing, 252 meters back of the new levee, 125 meters in front of the new railroad, 150 meters north of an east and west hedge fence, 10 meters north of an 18-inch tree, on the west side of a ditch and 4 meters south of the intersection of ditches; and is a 6 by 6 inch limestone monument marked "U. S." with a hole in the center. The stone is leaning toward the ditch, and rod was held on the high point inside of the lower part of the letter S (U. S. C. E. b. m. 165/4) 30.279

Arbroth store and post office, 125 meters below, 54 meters back from the inner base of the levee, 14 meters back of a small store, 1 meter below the fence, below tramway running back from river at False River Landing; bottom of square hole cut in stone marked B ⊡ M (Was reported in good condition in 1900) (U. S. C. E. p. b. m. XXXV) 34.449

U. S
1880

Arbroth, near, 1,000 meters above the present Kelson Landing, near the lower end of a pecan grove, on a large root on the back side of the large pecan tree nearest the levee on which high-water gage 39 is situated; wire nail (U. S. C. E. t. b. m. 65) 36.348

Hermitage, near, on Wildwood plantation, near the middle of the front side of the pecan grove around the site of the old Robert Clemon residence, the house has been destroyed but the chimney was still standing in 1900, standing in the fence line back of the road back of the levee; stone post (U. S. C. E. b. m. 164/3) 36.581

Hermitage, about three-fourths of a mile below, just above a negro cabin, on the north root of a 3-foot gum tree, 4 meters inside of the fence on the south side of the road back of the levee; wire nail (U. S. C. E. t. b. m. 64) 33.747

Digitized by Google

Hermitage, 75 meters below the bank of the outlet of False River, on the right bank of the river, a 3-foot live oak, bearing high-water gage 40, stands 10 meters north, and a 2-foot live oak stands 13 meters southwest, both bearing blazed triangles facing the stone; bottom of square hole cut in stone, marked B ⊡ M (The house that originally stood by the bench mark is destroyed) (U. S. C. E. p. b. m. XXXVI) ..... Feet. 37.785

Hermitage, near, 149 meters above Grand Bay Landing warehouse, 10 meters back of the old levee, on the lone northwest root of a 2-foot thorn tree about 4 feet from the trunk of the tree; wire nail (U. S. C. E. t. b. m. 63) 35.062

Anchor, near, 214 meters below the cotton gin at Cooks Landing, which is the landing for Anchor post office, 2 meters east of the ditch and 17 meters west of the west base of the old levee, and is the highest point of a small square cut on the south corner of a 6 by 6 inch stone monument with top broken off projecting 8 inches out of ground (U. S. C. E. b. m. 162/3) 37.802

Anchor, near, 170 meters below the cotton gin at Cooks Landing, at the back edge of the road back of the old levee, in the top of a 4-inch honey-locust stump which joins a 6-inch honey-locust tree; wire nail (U. S. C. E. t. b. m. 61) 37.943

Anchor, near, on the building known as the St. Claude Landing warehouse (upper part used as a dwelling), owned by the heirs of Mr. Robin, and the only brick building in the vicinity; the upper edge of a horizontal notch cut in brick, nearly on the middle line of the front face and 5.4 feet above the ground (U. S. C. E. p. b. m. XXXVII) 45.020

Anchor, near, three-fourths of a mile above St. Claude Landing warehouse, about 150 meters below a point in the road opposite an old sugar mill, on side toward the river of a 24-inch honey-locust tree standing in a square angle of the fence on the side of the road back of the levee; wire nail (levee b. m. 224 is on same tree) (U. S. C. E. t. b. m. 59) 38.153

Bayou Sara, near, in Pointe Coupee Parish, about 400 meters below high-water gage 41, on the west root of a 2½-foot dead pecan tree standing in the middle of the road behind the levee, levee bench mark 221 is on the same tree on the opposite side; wire nail (U. S. C. E. t. b. m. 58) 38.809

Bayou Sara, near, in Pointe Coupee Parish, 2,870 meters below permanent bench mark XXXVIII on Preston plantation, on the south root of a 2-foot pecan tree standing in the middle of the road below the levee and the fence; wire nail (U. S. C. E. t. b. m. 57) 39.957

Bayou Sara, near, in Pointe Coupee Parish, 1,560 meters below permanent bench mark XXXVIII, on a 2-foot thorn tree standing in the center of the road behind the levee; wire nail (U. S. C. E. t. b. m. 56) 39.026

Bayou Sara, about 1 mile below a point opposite, in Pointe Coupee Parish, on the right bank, on Preston plantation, 700 meters above the division line between Preston and Woodburn plantations, 94 meters back of the inner base of the levee, 14 meters west of the lower end of a deep hole in the pasture; and a blazed double thorn tree, 2 feet in diameter, stands 75 meters east by the roadside, and a blazed dead 2-foot thorn tree N. 70° W., 44 meters; top of a copper bolt leaded in the top of a limestone monument 14 inches square, projecting 6 inches above ground (U. S. C. E. p. b. m. XXXVIII = Triangulation station S. E. Base) 39.485

Bayou Sara, near, in Pointe Coupee Parish, one-half mile below premanent bench mark XXXIX, about 80 meters back from the river and the same distance above a clump of timber on the backside of a large cottonwood tree on the side of the levee toward the river; wire nail (U. S. C. E. t. b. m. 55). 40.072

Digitized by Google

Bayou Sara, opposite Freehan's warehouse, in Point Coupee Parish, 800 meters below the ferry landing on the right bank; and in a limestone monument 14 inches square, standing 2 feet above ground, marked "U. S." on the west side and 1880 on the east side, the concrete bed has dirt partly washed out from beneath it, and it may have been disturbed, as it is at the top edge of the river bank; top of a copper bolt (U. S. C. E. p. b. m. XXXIX = Triangulation station N. W. Base)..... Feet. 39.173

Bayou Sara, opposite, in Pointe Coupee Parish, 7 meters in front of a cotton gin 30 meters below a road crossing the levee from the ferry landing, in the fence line back of the road back of the levee, in a stone post standing 8 inches out of the ground and flush with top of stone; top of a copper bolt (U. S. C. E. b. m. 160 3)..... 38.054

Bayou Sara, near, in Pointe Coupee Parish, one-half mile below Scoot crevasse, about 200 meters below the junction of the levees and about 500 meters back of the right bank of the river on a root on face toward the river of 5-pronged cypress tree standing in the fence line back of the road back of the levee, levee bench mark 192 is on the same tree; wire nail (U. S. C. E. t. b. m. 53)..... 32.149

Pointe Coupee post office, 655 meters east of Red Store on the right bank in an open field on Judge Cooley's plantation, on the south bank of a ditch, 200 meters from the levee; a flat stone and an iron pipe (U. S. C. E. b. m. 159 3):

Flat stone..... 31.004

Iron pipe..... 36.001

Pointe Coupee post office, 720 meters above Red Store, 445 meters below the Union Store, on the downstream side of the steps of the residence of Mr. N. Carmanche, on the right bank, 67 meters back of the new levee; bottom of square hole cut in stone (U. S. C. E. p. b. m. XL)..... 37.287

Pointe Coupee, near, 1,010 meters above the Union Store and 350 meters above high-water gage 42, on the side toward the river of a 3-foot live-oak tree standing 1 meter inside of the fence back of the road back of the levee on right bank, the tree is one of three standing in a triangular position; wire nail (U. S. C. E. t. b. m. 50)..... 39.737

Brooks, near, 80 meters below P. F. Bourgeois & Son's general store, on the side toward the river of a 5-foot pecan tree standing in the road 2 meters from the fence back of the levee, levee bench mark 168 is on same tree; wire nail (U. S. C. E. t. b. m. 49)..... 40.815

BLANCHARD QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 93° 45′–94°.]

From Shreveport northwest along Kansas City Southern R. R. to Jeters Landing.

Shreveport, in northwest corner of yard of the public building, 1.3 meters east and 0.5 meter south of fence corner, and 28 meters north of northwest corner of building:

Bolt in stone underground (U. S. C. E. p. b. m. 46)..... 195.994

Top of cap on iron post..... 200.062

Albany Point, in northeast corner of yard, 10.3 meters from northeast corner of house, 16 meters from edge of bluff, and 10 meters northwest of a cedar tree:

Bolt in stone underground (U. S. C. E. p. b. m. 1)..... 223.116

Top of cap on iron post..... 227.184

Digitized by Google

Henderson Mill, near upper end of Soda Lake, on line with north side of deserted house, 10 meters from northwest corner, 28 meters from edge of bluff, 12.4 meters southeast of twin mulberry and hickory trees; witnessed north and south sides by two buried millstones: Feet.

Bolt in stone underground..... 244.599

Top of cap on iron post (U. S. C. E. p. b. m. 2)..... 248.667

Mooringsport, on north side of C. S. Croom's store, 1.9 meters from northwest corner of gallery, 0.4 meter from edge of gallery, 0.6 meter from northwest corner of wall, and 45 meters from top bank of Ferry Lake:

Bolt in stone underground..... 183.382

Top of cap on iron post..... 187.450

Jeters Landing, on line of east side of deserted house, 0.9 meter from northeast corner, 21.1 meters from edge of bluff, measured on north and south line, and 29 meters from post oak on edge of bluff:

Bolt in stone underground (U. S. C. E. p. b. m. 4)..... 197.496

Top of cap on iron post..... 201.564

At Shreveport.

Shreveport, about two blocks east of central station, on north side of west abutment to steel bridge over Marshall Street on the main track of the Vicksburg, Shreveport & Pacific Ry., near the center of the top of the fifth step from the bottom and the seventh below the coping, the step to which is fastened the iron brace to the iron railing running down the side of the steps to the abutment, the abutments are of brick excepting the bridge seats and side steps, which are of sandstone; square cut lettered "U □ S" (C. & G. S. b. m. F)..... 189.028

Shreveport, in the east face of the parish courthouse, near the center of a large block of stone in the fifth tier above the ground, the second stone from the southeast corner of the building, 28 inches from the southeast corner and about 4 feet from the ground; intersection of two lines in end of a copper bolt (C. & G. S. b. m. G)..... 204.294

Shreveport, on the Vicksburg, Shreveport & Pacific Ry. bridge over Red River, on the south side of the first stone pier from the west bank, upon which rests the east end of the first span of steel trestlework, and to which the United States Engineers river gage is attached, in the southwest quadrant of the semicircular top stone, 8 inches from the edge and projecting one-half of an inch above the stone; 18 inches from where the pier lantern hook is attached and 43 inches from the iron base plate to the trestle; intersection of two lines in end of copper bolt (C. & G. S. b. m. H)..... 181.827

Shreveport, on the south side of the east abutment to the Vicksburg, Shreveport & Pacific Ry. bridge over Red River, on the granite bridge seat, 5 inches from the south and 6 inches from the west edge of the stone, about 4 feet below the level of the track; bottom of a square hole cut in stone (C. & G. S. b. m. I)..... 183.697

From Shreveport to Curtis.

Shreveport, on first pier at east end of railway bridge and on south side of bridge, on anchor bolt; cross (U. S. C. E. t. b. m. 116a)..... 186.499

Shreveport, in stone sill of back door of post office in public building; cross cut (mark for barometer)..... 199.275

Shreveport, on south side of west abutment of the Vicksburg, Shreveport & Pacific Ry. bridge, on lower course of stone of the top stones; cross cut (Bayou Pierre b. m. 2)..... 182.047

Curtis, on pipe of triangulation station 148 of Red River survey; cross (U. S. C. E. t. b. m. 121)..... 167.939

Digitized by Google

BONITA QUADRANGLE.

[Latitude 32° 45′–33°; longitude 91° 30′–91° 45′.]

Along St. Louis, Iron Mountain & Southern Ry.

	Feet.
Bayou Bartholomew, at Lindgrove Landing, in the west corner of field about 50 meters south of abandoned store and 50 meters back from left bank of bayou; top of iron post (U. S. C. E. p. b. m. Lindgrove)	106.030
Bonita, in northeast corner of garden belonging to section house of railway, about 16 meters east of track and 45 meters north of section house; top of iron post (U. S. C. E. p. b. m. Bonita)	106.706
Jones station, about 20 meters east of railway track and 15 meters south of milepost 496, and in corner of field opposite station platform; top of iron post (U. S. C. E. p. b. m. Jones)	107.109
Morehouse Parish, about 500 meters south of line between Louisiana and Arkansas, in edge of field on south side of road, 15 meters east of track and 80 meters east of left bank of bayou; top of iron post (U. S. C. E. p. b. m. La.-Ark.)	107.477

BOSSIER QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 93° 30′–93° 45′.]

From Haughton west to Shreveport.

Haughton, in southwest corner of J. T. Edward's yard, 11.6 meters south and 10.4 meters west of southwest corner of residence:	
Bolt in stone underground (U. S. C. E. p. b. m. 43)	237.027
Top of cap on iron post	241.095
Bodcau, in northeast corner of yard of Oliver Williams, 5.6 meters east and 4.5 meters north of northeast corner of residence and 24.3 meters south of center of track:	
Bolt in stone underground (U. S. C. E. p. b. m. 44)	203.976
Top of cap on iron post	208.044
Shreveport, opposite, on east side of Red River, about 840 feet east from Bossier end of Vicksburg, Shreveport & Pacific Ry. bridge over Red River, and 113 feet south of track, in northwest corner of small field, where road from southeast turns northeast along track:	
Bolt in stone underground (U. S. C. E. p. b. m. 45; same as triangulation station West Base of Shreveport base line)	171.496
Top of cap on iron post	175.564

From Hurricane Bluff south to Shreveport.

Hurricane Bluff, about 4 miles from Benton, Bossier Parish, 70 meters from left bank of Red River and in yard to residence of Walter Ivory, 20 meters from road to Hurricane Bluff Ferry; pipestone bench:	
Bolt in limestone underground (U. S. C. E. p. b. m. Hurricane Bluff)	191.906
Top of cap on iron post	195.974
Benton, about 4 miles west of, 1,650 feet from river and 1,000 feet above mouth of small bayou at Hurricane Bluff; top of boss to standard bench-mark pipe (no stone) (U. S. C. E. p. r. p. 30 C)	229.209
Benton, in northeast corner of section-house yard; pipestone bench:	
Bolt in limestone underground (U. S. C. E. p. b. m. Benton)	210.472
Top of cap on iron post	214.540
Vanceville, on third brick of second offset course from northwest corner of brick chimney to a deserted cabin, 60 meters west of track, 3½ telegraph poles north of milepost 443, plantation road crosses track and runs in front of bench; the letters "U. S." are cut in the course of brick just above bench; cross cut (U. S. C. E. t. b. m. 274)	178.208

Digitized by Google

Vanceville, on plantation of T. J. Vance, in front of plantation house, and on top of levee about 420 feet above Benoit Bayou; pipestone bench: Feet.
Bolt in limestone underground (U. S. C. E. p. r. p. 32; Red River survey) 182.145
Top of cap on iron post..... 186.213

Shreveport, on top capstone of retaining wall on southwest side of Vicksburg, Shreveport & Pacific Ry. bridge; cross (+) cut (U. S. C. E. b. m. "B. P."). (Not Bayou Pierre survey b. m. 2)..... 186.738

BOUGERE QUADRANGLE.

[Latitude 31° 15′–31° 22′ 30″; longitude 91° 30′–91° 37′ 30″.]

Near Bougere and Fairview.

Bougere, near, 1,000 meters above Bougere Landing and post office, 310 meters below a negro church, a 24-inch and a 30-inch pecan tree stand on opposite or north side of road, the first below the stone, the other above and distant 36 and 40 meters, respectively, both trees blazed with triangle facing stone, 1 meter north of fence on south side of road; stone post (U. S. C. E. b. m. 142/3)... 55.679

Bougere, near, 1 mile above Bougere Landing and post office, on the Ashland plantation, on the left of the steps leading to the front entrance of residence of Mr. Charles Johnson, agent of Mr. Learned, of Natchez, Miss., about midway between the steps and west end of gallery, top of stone is 2 inches above ground, in top of granite post buried in the ground; bottom of square cavity (U. S. C. E. b. m. LIV C. & G. S.)..... 57.096

Fairview, near, in bench cut on north root of a 16-inch pecan tree standing at the north edge of road, 50 meters south of levee and 63 meters below or west of bench mark 141/3, tree bears a blazed triangle facing the bench mark; top of 40d. boat spike (U. S. C. E. t. b. m. 31)..... 57.828

Fairview, near, on Excelsior plantation, back of Fritz Island, 90 meters back of low ground which formerly was a chute, 47 meters south of levee, 2 meters south of center of road and in edge of cotton field, opposite a large burnt snag standing at base of levee, another snag stands 25 meters above pipe, pipe is 199 meters above cabin occupied by Maggie Meyers (colored), 213 meters below cabin occupied by Sam Gains (colored), both standing between road and levee, 260 meters below cross fence, at road which leads across slough toward river, in position of stone whose top was broken off:
Tile and pipe (U. S. C. E. new b. m. 141/3). (See t. b. m. 31 for witness tree)..... 53.884
Top of cap..... 57.867

Fairview, near, about 2.5 miles below Fairview Landing, 1.25 miles below Fairview post office, 60 meters above a road that crosses levee and leads to Excelsior store, on property belonging to the Excelsior plantation, 3 meters outside of levee, driven vertically into bench cut on root on levee side of a 36-inch sycamore tree; top of boat spike (U. S. C. E. t. b. m. 32)..... 58.120

Fairview, near, 1.5 miles below Fairview Landing, 0.5 mile below stone line 140, about 50 meters below several brick tombs in graveyard back of levee at 3 cedar trees, on root on levee side of a 4-foot pecan tree which bears highwater gage 54, which is on right bank about center north and south of Point Pleasant plantation; top of boat spike driven vertically into bench (U. S. C. E. t. b. m. 36)..... 57.723

Fairview, near, about 1 mile below Fairview Landing, 325 meters below hedge fence dividing the Roseland and Point Pleasant plantations, about 150 meters outside of levee, about 15 meters back of top of main right bank of river, 350° 05′—1,180 meters from Roseland gin, standing in grass, 6 inches above ground; highest point on stone post (U. S. C. E. b. m. 140/3). 57.821

Digitized by Google

	Feet.
Fairview, near, 15 meters above hedge which divides the Roseland and Fairview plantations, 8 meters above large ramp where road crosses levee, standing at outer base of levee, in top of stump of 6-inch willow; top of boat spike driven vertically (U. S. C. E. t. b. m. 38)	52.798
Fairview, near, about opposite or 400 meters back of high water gage 55, which is a little below Boyds Landing, and opposite lower half of Glasscock Island, on Promised Land plantation, of Glasscock Swamp, on right bank of river, 73 meters back of base of levee, in southeast corner of yard around cabin of Richard Jones (colored), agent for Mr. C. B. De Long, of Fithian, Ill., standing 1 meter from either fence:	
Tile and pipe (U. S. C. E. p. b. m. Jones)	46.601
Top of cap	50.584

BOYCE QUADRANGLE.

[Latitude 31° 15′–31° 30′; longitude 92° 30′–92° 45′.]

Near Boyce.

Fairmount post office, about 2 kilometers above, opposite Deloges Rock, on plantation of Mrs. A. C. Deal, in southeast corner of yard on west side of Mrs. Deal's store, 5 meters south of south wall of store and 9.4 meters west of east wall:	
Bolt in stone underground (U. S. C. E. p. b. m. 70)	94.642
Top of cap on iron post	98.710
Boyce, next to fence in field belonging to Mr. Boyce and at an angle of lane running back from warehouse along north side of town, 42 meters west of east wall of J. T. Carnahan's residence and 37.1 meters north of north wall:	
Bolt in stone underground (U. S. C. E. p. b. m. 71)	85.928
Top of cap on iron post	89.996

CALVERT LAKE QUADRANGLE.

[Latitude 31° 45′–31° 52′ 30″; longitude 91° 07′ 30″–91° 15′.]

Near Rodney.

Rodney, Miss., near, in Tensas Parish, La., at former Beelers Landing, on the Villa Clara plantation, on the left of and quite near the steps leading to the front entrance of Mr. Frank C. Curry's residence, in top of 5-inch square marble post, 2.5 feet long, buried in ground; bottom of square cavity (U. S. C. E. b. m. No. 297 or LXXIII C. & G. S.)	71.607
St. Joseph, La., and Rodney, Miss., between, in Tensas Parish, La., standing in back yard of Mr. Frank C. Curry's Villa Clara plantation residence, rod held on highest point of stone, which is its northeast corner; stone post with corners battered off (U. S. C. E. b. m. 120/3)	70.856

CAMPTI QUADRANGLE.

[Latitude 31° 45′–32°; longitude 93°–93° 15′.]

Along Red River.

Old River, property lies just above, and to left of public road to Campti, on property of George Johnson (colored), next below Boyce plantation, 1.8 meters from north line of residence and on line with front of gallery:	
Bolt in stone underground (U. S. C. E. p. b. m. 60)	121.322
Top of cap on iron post	125.390
Willow post-office building, in small yard adjoining, 3.5 meters south of south line of post office and 3 meters west of west line of post office:	
Bolt in stone underground (U. S. C. E. p. b. m. 62)	119.170
Top of cap on iron post	123.238

Digitized by Google

Tiger Island, opposite lower end of, in southwest corner of yard of H. P. Gallion, on east bank of Fausee River, just above where it branches, 39 meters west of west line of gallery of residence and 5.5 meters south of south line of residence: Feet.

Bolt in stone underground (U. S. C. E. p. b. m. 63) 112.933

Top of cap on iron post 117.001

CHEF MENTEUR QUADRANGLE.

[Latitude 30°–30° 15′; longitude 89° 45′–90°.]

At Fort Macomb.

Fort Macomb, in the wall of, on the right-hand side (as you go in) of the entrance, there is a moat around the wall, the bridge over the moat has rotted away, the sill to the entrance to the fort is removed, but the wall seems to be in first-class condition; the center of a copper bolt leaded horizontally, letters marked around the bolt U S 18 ⊙ 82 P. B. M (U. S. C. E. p. b. m. 4) 7.287

COLUMBIA QUADRANGLE.

[Latitude 32°–32° 15′; longitude 92°–92° 15′.]

From Blankston south along railroad to Columbia, thence along Ouachita River to Gibsons Landing.

Blankston, at southwest corner of yard around I. A. Davis's residence, 1 meter from fence and 0.75 meter from post-office building, 38 meters from center of levee, and 75 meters from southwest corner of dwelling:

Bolt in stone underground (U. S. C. E. p. b. m. 10) 64.593

Top of cap on iron post 68.661

Blankston, 130 meters southwest from Orange Call's dwelling, 100 meters from left bank of river, 5 meters south of road, on top of marble stone 0.12 meter square dividing Call's and Faulkner's places; cross (U. S. C. E. t. b. m. 125) 71.220

Riverton station, about 1,750 meters below, 22 meters from center of railroad, 50 meters from Smith Lake, 300 meters from end of trestle approach to drawbridge, and 23 meters from corner of old cabin in field belonging to Widow Ruttland:

Bolt in stone underground (U. S. C. E. p. b. m. 11) 63.468

Top of cap on iron post 67.536

Riverton shore, on top of lower of first two piers from, on east side of east pier at north end of drawbridge over Ouachita River at Riverton; cross cut (U. S. C. E. gage B. M. B.) 77.129

Riverton, at north end of drawbridge across Ouachita River, in upper edge of lowest piece of sheet-iron casing of west pier; chisel mark (U. S. C. E. gage B. M. A.) 56.588

Columbia, in northwest corner of courthouse yard, at the corner of Wall and Main streets, 32 meters from northeast corner of jury room:

Bolt in stone underground (U. S. C. E. p. b. m. 12) 61.660

Top of cap on iron post 65.728

Gibsons Landing, in northwest corner of J. W. Price's yard, 10 meters north of north wall of house and 5 meters west of west wall, reference tree is 0.9 meter, elm 3 meters east of bench; top of cap (U. S. C. E. p. r. p. Gibson) .. 61.568

Digitized by Google

Along Boeuf River.

	Feet.
Boeuf River, near, 300 meters above Bird Lake Landing, on Harris place, 3 meters west of road, on field side of fence, 10 meters below angle, 100 meters above southwest corner of field, and 40 meters from bank of Boeuf River; pipe-flange bench (U. S. C. E. p. r. p. Harris)	65.430
Boeuf River, near, on Paul Brandin's place, at old Doucier Landing, 12 meters from right bank of Boeuf River, 300 meters below where road crossing neck from the old Doucier place reaches river; pipe-flange bench (U. S. C. E. p. r. p. Wheeler)	65.528
Boeuf River, near, 250 meters above Heberts Landing, in northwest corner of garden back of house of Widow Johnson, 16 meters from right bank of Boeuf River and 60 meters below a deep gully entering river; pipe-flange bench (U. S. C. E. p. r. p. Hebert)	62.920
Boeuf River, near, 400 meters southwest of Heberts Landing, in southeast corner of field on Hebert's place and on west side of road to Columbia, which crosses neck from Boeuf River to Bayou La Fourche, on top bank of Bayou La Fourche; pipe-flange bench (U. S. C. E. p. r. p. La Fourche)	62.362
Columbia, about 2.4 kilometers below and opposite, 7 meters north of fence forming south boundary, and 210 meters west of fence forming east boundary of I. Davis's place; pipe-flange bench (U. S. C. E. p. r. p. Columbia)	68.750
Columbia, near, on Wade place, 5 meters below cabin occupied by Henry Neil (1896) and on line with posts of front gallery, 15 meters east from road, 58 meters from left bank of river, 50 meters south of lane, and 150 meters below steam gin; pipe-flange bench (U. S. C. E. p. r. p. Wade)	69.777
Columbia, near, at the Boeuf River crossing of road to Columbia from Winnsboro, in grove of small pecans, 30 meters west of right bank of Boeuf River, 25 meters west of stretch of road paralleling river, 25 meters north of an east and west stretch in road, and 75 meters below lower end of small island in river; pipe-flange bench (U. S. C. E. p. r. p. Three Rivers)	54.839

CRICHTON QUADRANGLE.

[Latitude 32°–32° 15′; longitude 93° 15′–93° 30′.]

From Howard southeast down Red River to Coushatta.

Howard post office, near, on Stringfellow's plantation, right bank of river, in southwest corner of yard of cabin occupied by S. Johnson (colored), 23.5 meters south and 6.8 meters west of cabin, which stands 300 meters southwest of plantation house and 200 meters south of gin, and is the first cabin south of post office:	
Bolt in stone underground (U. S. C. E. p. b. m. 53)	141.584
Top of cap on iron post	145.652
Loggy Bayou, just below mouth of, in yard of Thomas Bell, on left bank of river, 10.4 meters north of residence and 45 meters from river bank:	
Bolt in stone underground	143.983
Top of cap on iron post (U. S. C. E. p. b. m. 54)	148.051
Crichton's plantation, on left bank of river, in southwest corner of yard around two cabins standing where river makes an abrupt turn to the right, cabins are about 400 meters below Mr. Crichton's residence and 100 meters to left of the public road:	
Bolt in stone underground (U. S. C. E. p. b. m. 56)	137.933
Top of cap on iron post	142.001

Digitized by Google

Coushatta, in northwest corner of courthouse yard, 1 meter from north fence line, 1 meter from west fence line, and 33.2 meters from northwest corner of courthouse:

	Feet.
Bolt in stone underground	132.424
Top of cap on iron post (U. S. C. E. p. b. m. 57)	136.492

Coushatta, in northwest corner of yard of Methodist Church, 0.8 meter from north fence line, 0.9 meter from west fence line, 31 meters from east fence line, and 7.9 meters from northwest corner of church:

Bolt in stone under ground (U. S. C. E. p. b. m. 58)	133.815
Top of cap on iron post	137.883

DELHI QUADRANGLE.

[Latitude 32° 22′ 30″–32° 30′; longitude 91° 22′ 30″–91° 30′.]

From Waverly west along railroad to Delhi.

Waverly, in northwest corner of yard of house occupied by section foreman, 55 meters south of center of railroad track, and 20.5 meters north of house, in continuation of west wall:

Bolt in stone under ground (U. S. C. E. p. b. m. 11)	78.888
Top of cap on iron post	82.956

Bayou Macon, on west bank of, near Vicksburg, Shreveport & Pacific Ry. bridge, in direct range of the fourth bent of west bridge approach, 40 meters south of center of track and 10.8 meters northeast of blazed locust:

Bolt in stone under ground (U. S. C. E. p. b. m. 12)	74.570
Top of cap on iron post	78.638

Delhi, in northwest corner of residence lot belonging to W. T. Insley, 27.3 meters south of center line of track, 20.4 meters east of Catholic churchyard fence, and 1 meter south and 1 meter east of northwest fence corner:

Bolt in stone under ground (U. S. C. E. p. b. m. 13)	94.665
Top of cap on iron post	98.733

From Delhi to Tensas River.

Delhi, on northeast corner of brick pier of northeast corner of S. Blum's store, pier supports iron column at northeast corner of porch in front of store; pipe-flange bench (U. S. C. E. t. b. m. 1)	96.748
Pullaway Landing, on Jackson place near, in west corner of barn lot adjoining yard to plantation house owned by Tom Griffin, about 830 meters from mouth of Pullaway Bayou and near Jackson or Pullaway Landing; pipe-flange bench (U. S. C. E. p. b. m. Griffin)	87.401
Sunrise Landing, in northwest corner of lot adjoining front yard of J. L. Newcomer's residence, about 1.6 kilometers below Warsaw Landing, on Bayou Macon; pipe-flange bench (U. S. C. E. p. r. p. Newcomer)	92.237
Crowville, near, on Gray place, in southwest corner of yard of house occupied by James McPherson, 44 meters back from right bank of Tensas River; pipe-flange bench (U. S. C. E. p. b. m. Gray)	75.623

DELTA POINT QUADRANGLE.

[Latitude 32° 15′–32° 22′ 30″; longitude 90° 52′ 30″–91°.]

From Griffin to Delta along Mississippi River.

Griffin, near, ½ mile southeast of Griffin post office, or Bedford store, in field near right angle in levee on property of Muench & Sons and 320 meters back of left bank of river, 0.5 meter below Bedford Landing, on southeast root of a lone 30-inch pecan tree, which is 3 meters north of one levee, and 50 meters southwest of the other, and has triangle blazed on it over the bench mark, driven vertically into bench; top of boat spike (U. S. C. E. t. b. m. 194)	89.527

Digitized by Google

Griffin, near, 2 miles above Bedford Landing and 3 miles below permanent bench mark Martin along new levee, at back edge of barrow pit, 20 meters back of base of levee, at angle at junction with old levee, driven vertically into top, near levee edge, of 3-foot cottonwood stump; top of boat spike (U. S. C. E. t. b. m. 197)..... Feet. 81.384

Delta, near, on right bank on property of Ann Martin, about 3,000 meters below Grants Canal, in Delta, ¾ meter south of cabin occupied by Jack Miller, 5 meters north of corner gallery, about 20 meters north of new levee (now under construction), 78 meters west of old levee, and about 150 meters above house of Ann Martin; it stands between 2 young peach trees and 14 meters north of a 12-inch pecan tree, about 200 meters above high-water gage 75:

Tile and pipe (U. S. C. E. p. b. m. Martin)..... 82.795

Top of cap..... 86.791

Delta, 85.12 feet from southwest base in prolongation of the line northeast base-southwest base, in center of stone post 6 inches square and 3½ feet long, which bears the characters U. S. C. S. and 1878; ¼-inch copper bolt with a cross in center (U. S. C. E. range stone for southwest base)..... 86.811

Delta, at the southwest end of the town of, just across the Vicksburg, Shreveport & Pacific Ry. (and 10 meters from it), in prolongation of the south side of Main Street, on the southeast side of the county road, or Main Street prolonged, and 390 meters below Grants Canal, in a limestone monument 4 feet long, dressed to 14 by 14 inches at top and 6 inches above ground; cross in center of top of ¼-inch copper bolt. (It marks the southwest end of the Delta base line of the C. & G. S. and bears the characters U. S. C. S. and 1878) (U. S. C. E. SW. Base=B. M. 107/3)..... 87.792

Delta, in the yard surrounding the section house (No. 7) of the Vicksburg, Shreveport & Pacific Ry. in the town of, near northeast corner of house in line with front edge of gallery and 2 feet from corner of same, 62 meters below nearest corner of roundhouse, 200 meters above Delta Point station, 50 meters back of base of levee, and 11 meters south of main track of railroad, a 12-inch mulberry tree stands 4 meters northwest:

Tile and pipe (U. S. C. E. p. b. m. Delta)..... 86.535

Top of cap..... 90.541

Delta, near, on the point above, directly in the line of Main Street prolonged, 80 meters southwest of railroad incline, 6 inches underground, 3-inch iron pipe 1 foot above ground stands 5 feet north, an iron switch bar stands 5 feet west, as finders for the stone, the copper bolt has been somewhat battered, and the U. S. Engineer office at Vicksburg cut a small square on stone 0.01 meter north of the bolt and used it for elevation, 0.5 millimeter higher than top of bolt, it marks the northeast end of the Delta base line of the C. & G. S., and bears the characters U. S. C. S. and 1878 on it; a limestone monument 4 feet long, dressed to 14 by 14 inches at top with a ¼-inch copper bolt with a cross on it in center of top (U. S. C. E. NE. base)..... 91.758

Delta, opposite Vicksburg, Miss.; the end of vertical ray of five-rayed cast-iron star, used as a tie-plate, in south end of parish clerk's office near courthouse; about 4 feet from ground and 3 from southeast corner of building; reported as loose in 1896 (U. S. C. E. b. m. 215)..... 91.880

Willow Glenn plantation; the center of cross in head of copper bolt in middle brick of eighth course from ground of second pillar from southeast corner of dwelling-house porch, about 2 miles above Delta (U. S. C. E. b. m. 211)... 91.506

Digitized by Google

Elcho plantation; the center of head of copper bolt in brick in twenty-first course from ground and third one from southeast edge of south chimney of dwelling house (U. S. C. E. b. m. 207) ..... Feet. 98.110

Duck Port plantation; the center of head of copper bolt in middle brick of third course from top of third pillar from northeast corner of dwelling-house porch (U. S. C. E. b. m. 197) 97.644

Cabin Teele plantation; the center of head of copper bolt in brick in east face of brick pillar supporting the northeast corner of dwelling house (U. S. C. E. b. m. 188) 99.081

Griffin, or Bedford store, one-half mile southeast of; in field near right angle in levee on property of Muench & Sons and 320 meters back of left bank of river, 0.5 meter below Bedford Landing, 3 meters north of one levee and 50 meters southwest of the other; top of boat spike driven vertically into bench cut on southeast root of a lone 30-inch pecan tree (U. S. C. E. t. b. m. 194). 89.529

Bedford Landing, 2 miles above; at back edge of barrow pit, 20 meters back of base of levee, at angle at junction with old levee; top of boat spike driven vertically into top of 3-foot cottonwood stump (U. S. C. E. t. b. m. 197).. 81.383

Delta, about 3,000 meters below Grants Canal, on property of Ann Martin, about 150 meters above house, ¾ meter south of cabin occupied by Jack Miller, about 5 meters north of corner gallery and about 20 meters north of new levee, 78 meters west of old levee, on right bank about 200 meters above high-water gage, between two peach trees and 14 meters north of 12-inch pecan tree:

Tile and pipe (U. S. C. E. p. b. m. Martin) 82.796

Top of cap 86.791

Delta, 85.12 feet from southwest base in prolongation of the northeast base line; cross on ¼-inch copper bolt in stone post 6 inches square and 3½ feet long, marked U. S. C. S. 1878 (C. & G. S. range stone for southwest base).. 86.812

Delta, southeast side of county road, or Main Street prolonged, 390 meters below Grants Canal, at southwest end of town, just across the Vicksburg, Shreveport & Pacific Ry.; a limestone monument 4 feet long, dressed to 14 by 14 inches at top, with a ¼-inch copper bolt with a cross on it in center of top; it marks the southwest end of the Delta base line and is marked "U. S. C. S. 1878" (C. & G. S. b. m. "S. W. base=b. m. $\frac{107''}{3}$) 87.793

Delta, near northeast corner of section house in yard of the Vicksburg, Shreveport & Pacific Ry., in line with front edge of gallery and 2 feet from corner; 62 meters below nearest corner of roundhouse, 200 meters above Delta Point station, 50 meters back of base of levee, and 11 meters south of main track of railroad; a 12-inch mulberry tree stands 4 meters northwest (U. S. C. E. p. b. m. Delta):

Tile and pipe 86.534

Top of cap 90.541

Delta, on point above, directly in the line of Main Street prolonged, 80 meters southwest of railroad incline; a limestone monument 4 feet long, dressed to 14 by 14 inches at top, with a ¼-inch copper bolt with a cross on it in center of top; it marks the northeast end of the Delta base line and is marked "U. S. C. S. 1878"; a 3-inch iron pipe 1 foot above ground stands 5 feet north, an iron switch bar stands 5 feet west, as finders for stone (C. & G. S. b. m. N. E. base) 91.757

Digitized by Google

DONALDSONVILLE QUADRANGLE.

[Latitude 30°–30° 15′; longitude 90° 45′–91°.]

From Convent to Belle Helene along Yazoo & Mississippi Valley R. R.

Convent, near, in the south end of granite doorsill at the most southern entrance on the front or west side of the Convent of the Sacred Heart, 7 meters north of the southwest corner of the convent and about 4 feet above the ground; bottom of square hole cut in stone. (It was reported in good condition in 1898) (U. S. C. E. p. b. m. XIV) ..... Feet. 23.884

Colomb, on the northwest corner of the stone pedestal of the pillar on the south side of the entrance to the house of George Schepp, formerly owned by Leopold Colomb, house stands about 10 meters back of levee, opposite Colomb station, on the Yazoo & Mississippi Valley R. R., and about 70 meters above Colomb Park store; a point in a square cut, marked U S B M X ◊ V (Reported in good state of preservation in 1898) (U. S. C. E. p. b. m. XV) 23.386

Burnside, 2.5 miles below, on Union plantation, at the side of the front steps of the main residence, just back of the levee on the left bank of the river, one-half mile above stone line 190 and 900 meters from the Yazoo & Mississippi Valley R. R.; a point in a square cut on a limestone slab, marked with letters "U. S. B. M.," and was reported in good condition in 1898. (U. S. C. E. p. b. m. XVI) 24.767

Belle Helene, near, on Linwood plantation, on the north side of the road leading back from Linwood Landing, about 600 meters toward the river from the Yazoo & Mississippi Valley R. R., 100 meters southwesterly from a large brick house between the road and the ditch:

Flat stone and iron pipe with cap of pipe gone. (Blazed trees: 12-inch magnolia is 5 meters north, 12-inch magnolia 13 meters west) (U. S. C. E. b. m. 185/1) 20.148

Top of cap 25.134

Celestine plantation, property of Felician Ory, about 0.25 mile above Lily store and landing, 48 meters back of Louisville, New Orleans & Texas R. R., 14½ rail lengths below milepost "52 miles to N. O.," on upper bank of second ditch above road leading from river to sugarhouse:

Copper bolt in tile 10.646

Top of cap (U. S. C. E. b. m. 192/1) 14.613

Whitehall, near, on Alta Vela plantation, on Louisville, New Orleans & Texas R. R. right of way, between main track and siding, 57½ rail lengths below Whitehall station, 20 rail lengths above lower end of switch at an old road crossing:

Copper bolt in tile (U. S. C. E. b. m. 191/1) 16.404

Top of cap 20.361

Miles, about 800 meters below, 0.25 mile below landing on Bagatelle plantation, 0.5 mile above Union post office, on St. Mary plantation, 28 meters below line between Bagatelle and St. Mary plantations, on line of Louisville, New Orleans & Texas R. R. is 17⅔ rail lengths below milepost "58 miles to N. O. and 397 miles to Memphis;" on the upper side of first ditch below boundary line an 18-inch sycamore tree 30 meters N. 60° W. is blazed with a triangle:

Copper bolt in tile (U. S. C. E. b. m. 190/1) 10.676

Top of cap 14.639

Digitized by Google

DOWNSVILLE QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 92° 15′–92° 30′.]

From Calhoun to Choudrant.

Calhoun, at northwest corner of yard of C. C. Harris, 18 meters west and 7.5 meters north of northwest corner of Harris's house, and 45 meters south of center of track:

	Feet.
Bolt in stone underground (U. S. C. E. p. b. m. 30)	165. 843
Top of cap on iron post	169. 911

Choudrant, 1 meter east and 4.4 meters north of southwest corner of Farmers' Union office, and 66 meters north of center line of track:

Bolt in stone underground	152. 611
Top of cap on iron post (U. S. C. E. p. b. m. 32)	156. 679

DREW QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 92°–92° 15′.]

From Monroe to Parkeville along Ouachita River.

Bayou De Siord, about 100 meters below mouth of, on top of Indian mound, about 100 meters east of east bank of Ouachita River and 50 meters south of south bank of Bayou De Siord, and about 200 meters above gin on Pargoud place:

Bolt in stone underground (U. S. C. E. p. r. p. Pargoud)	103. 684
Top of cap on iron post	107. 752

Bank Smith place, on the, in the west edge of the cultivated field, about 50 meters northeast of an abandoned cabin and 60 meters east of east bank of river, 250 meters south of wagon road and witnessed by two triangular blazed trees, as follows: 0.8 meter cottonwood, 72° 17′, 45 meters; 0.4 meter redwood, 159° 20′, 12 meters:

Bolt in stone underground (p. r. p. Zeph)	79. 340
Top of cap on iron post	83. 408

Rock Row Shoals, in west side of yard around residence on Taylor place, 1 meter north of north wall and 12 meters west of west wall of house, 30 meters north of left bank of river, and witnessed by two triangular blazed trees, as follows: 0.8 meter chinaberry S. 50° E., 4 meters; 0.3 meter peach N. 10° E., 2.5 meters:

Bolt in stone underground (U. S. C. E. p. r. p. Rock Row)	76. 952
Top of cap on iron post	81. 020

Glendora and Hugh Young places, on the division line between, about 460 meters southeast of the east bank of Ouachita River where the property line strikes same, midway between two ditches where they unite:

Bolt in stone underground (p. r. p. Glendora)	81. 470
Top of cap on iron post	85. 538

Parkeville, in the northeast corner of yard to house occupied by Bob Tucker (colored) and belonging to James Steele, 40 meters back from right bank of Bayou Bartholomew and about 200 meters above its mouth, 3 meters east of east end of house and 12 meters north of L to house; witnessed by two blazed trees as follows: 0.6 meter chinaberry S. 35° W. 6 meters, and 0.5 meter chinaberry N. 80° W., 4 meters:

Bolt in stone underground (U. S. C. E. p. r. p. Parkeville)	77. 638
Top of cap on iron post	81. 705

Digitized by Google

From Glendora west.

	Feet.
Port Union Landing, in south corner of R. C. Webb's yard, about 14.5 meters south of south corner of dwelling and 60 meters from right bank of river; top of cap on iron post (U. S. C. E. p. b. m. Port Union)	84.964
Port Union Landing, in northeast corner of W. T. Hay's yard, 21.4 meters from northeast corner of residence and 30 meters south of public road; top of cap on iron post (U. S. C. E. p. b. m. Hay)	135.567
Farmerville, at forks of road coming from, and going to Ouachita City and Port Union, in north corner of yard of William White, 5 meters south of first road, 25 meters east of second, and 9 meters from north corner of house; top of cap on iron post	179.442

EAGLE BEND QUADRANGLE.

[Latitude 32° 30′–32° 37′ 30″; longitude 91°–91° 07′ 30″.]

Near Henderson Landing.

Omega, one-fourth mile above, on Ditchley plantation, in brick chimney on north face and near northeast edge of Mrs. Sarah A. Nutt's dwelling house; center of head of copper bolt (U. S. C. E. b. m. No. 171)	96.985
Henderson Landing, one-eighth mile above, on Henderson plantation, in west face of pillar of dwelling house owned by Mrs. Emma E. Peck; center of head of copper bolt (U. S. C. E. b. m. 162)	102.254
Henderson Landing, three-fourths mile above, on Henderson plantation, in east face of chimney of cabin opposite old gin house; center of head of copper bolt, marked "U. S. B. M." (U. S. C. E. b. m. 161)	99.603

FARMERVILLE QUADRANGLE.

[Latitude 32° 45′–33°; longitude 92° 15′–92° 30′.]

Near Farmerville.

Farmerville to Port Union, in southeast corner of yard of Pattison Rogers on "Lower Road," about 7.75 miles from former place, it is 0.6 meter from front fence, 5 meters west of fence dividing yard and horse lot, 3.1 meters southeast of well, and 9.5 meters southeast of cabin; top of cap on iron post (p. b. m. Rogers)	175.767
Farmerville, in northwest corner of Union Parish courthouse yard at; top of cap on iron post (U. S. C. E. p. b. m. Farmerville)	179.855
Scotts Bluff, on right top bank and 30 meters back of right second bank of Bayou Corney, 19 meters below site of old warehouse and witnessed by three triangular blazed trees, as follows: Bench is on line with and halfway between 0.7-meter black gum north 1.5 meters and 0.5-meter black gum south 1.5 meters; and 0.5-meter pine northeast 6 meters; top of cap on iron post (U. S. C. E. p. b. m. Scott)	76.243
Steins Bluff, on northeast side and halfway between north and east corners of smallest old store, old store is about 20 meters west of south end of warehouse; top of cap on iron post (U. S. C. E. p. b. m. Stein)	96.978
Bayou D'Arbonne, on right top bank of, 25 meters east or below ferry road, 12 meters from edge of bank and near a small swale, and witnessed by four triangular blazed trees: 0.60-meter sweet gum, 230°, 2.5 meters: 0.50 meter water oak, 190°, 3 meters; 1.40-meter oak, 330°, 8 meters, and 0.5-meter pin oak, 40°, 4 meters; top of cap on iron post (U. S. C. E. p. b. m. Cox Ferry)	70.978

Digitized by Google

FERRIDAY QUADRANGLE.

[Latitude 31° 37′ 30″–31° 45′; longitude 91° 30′–91° 37′ 30″.]

From Clayton to Helena.

	Feet.
Clayton, at corner of fence, about 25 meters northeast of track, 10 meters southeast of left bank of Tensas River, and 25 meters north of depot; top of cap on iron post (U. S. C. E. p. b. m. Clayton)	61.772
Cypress City, in yard of Henry Ellerbee (colored) and 85 meters west of track; top of cap on iron post (U. S. C. E. p. b. m. Cypress)	58.681
Helena, on north side of lane and about 20 meters north of track and on property of Graves & Veaton Co.; top of cap on iron post (U. S. C. E. p. b. m. Helena)	60.840

FISH POND QUADRANGLE.

[Latitude 31° 22′ 30″–31° 30′; longitude 91° 30′–91° 37′ 30″.]

From Fish Pond north along levee to Morville.

Fish Pond, near, about 20 meters back of levee and about 800 meters above permanent bench mark Jones, about 75 meters below corner of field, which corner is at base of levee, at fence back of levee, driven vertically in 5-inch stump of southeast limb of a 12-inch cottonwood stump; top of 30d. boat spike (U. S. C. E. t. b. m. 42)	52.634
Fish Pond, near, 2 meters below base of ramp where road crosses levee from Fish Pond Landing to Fish Pond station on Port Allen branch of Texas & Pacific R. R., on the property of D. H. Breton, ½ mile back of and a little above the landing, 450 meters toward river from station on railroad and 58 meters above a prominent slough; at inner base of new levee:	
Tile and pipe (U. S. C. E. p. b. m. Fish Pond)	53.635
Top of cap	57.638
Fish Pond, near, 1 meter south of south tree in hedge, 8 meters back of base of new levee, and 1 meter north of permanent bench mark Hedge, the hedge runs back from the river at the old Lehmann store just above Greens Landing, driven vertically into top of 12-inch osage orange stump; top of 30d. boat spike (U. S. C. E. t. b. m. 50)	55.884
Fish Pond, near, 2 meters south of south end of hedge, 7 meters north or back of base of new levee, said hedge, etc., see temporary bench mark 50 above:	
Tile and pipe (U. S. C. E. p. b. m. Hedge)	52.566
Top of cap	56.558
Morville, near 1.5 miles below Morville Landing, 553 meters below a prominent angle in levee, 390 meters above junction of levees where old levee continues southeasterly to the top of the main bank, in front of Ashley plantation, owned by S. B. Yeager, 100 meters above large barn and 50 meters above house occupied by William Smith; stone post (leaning on inner slope of levee, about one-third up from base, rod was held on cut on east side of top of stone) (U. S. C. E. b. m. 135/3)	62.388
Morville, near, 40 meters above a prominent angle in the levee, on north side of ramp of this road and at gate in mouth in levee, on property of S. B. Yeager, on north line of levee running back from Morville Landing to woods, and dividing Morville and Warnicott plantations, 16 meters back of base of levee, 2 feet back of fence:	
Tile and pipe (U. S. C. E. p. b. m. Yeager)	57.861
Top of cap	61.867

Digitized by Google

Morville, near, on the Moro plantation, 37 meters below a ditch which divides Moro from Bails plantation (both plantations are run by Isaac Freidler), 442 meters back of fence, back of road, back of levee, and opposite a point 1,500 meters below the foot of Natchez Island, back of road at third turn row: Feet.

Stone and new pipe (U. S. C. E. b. m. 134/4) 52.260

Top of cap 56.266

FORDOCHE QUADRANGLE.

[Latitude 30° 30′–30° 45′; longitude 91° 30′–91° 45′.]

From Brooks west along levee to Morganza.

Brooks, near, on the right bank immediately back of a prominent angle in the levee around an old crevasse polle, at the downstream end of the steps leading to the gallery in front of the residence of Mr. Ed. Morrison; bottom of square hole cut in top of stone marked U S ⊡ 1880 (U. S. C. E. p. b. m. XLI). 40.325

Brooks, near, 353 meters above permanent bench mark XLI, on the south side of the levee, in the highest part of a large stump; wire nail (U. S. C. E. t. b. m. 47) 40.610

Brooks, near, near Morganza crevasse, on the right bank 210 meters above the angle in the levee which is opposite high-water gage 43, on the north side of an 18-inch leaning willow tree standing on the south side of the road back of the levee; wire nail (U. S. C. E. t. b. m. 46) 34.783

Morganza, near, 500 meters above Morganza crevasse, in cottonwoods on the right bank, 80 meters outside of the piece of old levee known as Grand Levee, 350 meters outside of the outer base of the present main levee, 350 meters below a prominent angle in the same, 1,195 meters below the junction of the main levee and the old Grand Levee, where a watchman's station is located, known by a square enlargement of the levee for a cabin and levee materials:

A flat stone and an iron pipe. (The surrounding trees are blazed facing the pipe, the stone has no bolt in it, the rod was held in the center of the pipe) (U. S. C. E. b. m. 157/3) 35.128

Top of cap 40.216

Morganza, near, 1 mile above Morganza crevasse, on levee at watchman's station, known by a square enlargement of the levee for a cabin and levee materials, at junction of the old Grand Levee and the present main levee, 450 meters below the mouth of lane leading back along the lower side of Morganza plantation; top of the period after the date 1895 on the levee bench mark (p. b. m. XLII at this junction is either covered up or destroyed) (U. S. C. E. t. b. m. 43) 52.559

Morganza, near, 1,450 meters below the lane or State road leading back from New Texas Landing, at the top inner edge of levee, at an angle; the highest part of the rim around the hole of the levee bench mark, marked "U. S. 1895" 51.289

Morganza, near, at New Texas Landing, on stone line 156, in the line of fence on the south side of the State road leading back from the levee, on the east root of a 2½-foot cottonwood tree, 14 meters back from corner of the fence at the junction of the roads; wire nail (U. S. C. E. t. b. m. 39) 34.774

Morganza, near, on north side of the State road or lane leading back from New Texas Landing, 279 meters west of a corner of the fences at the mouth of the lane, just back of the road back of the new levee, 1 meter south of the line of fence; a square marking stone whose edges of stone have been chipped off, the copper bolt was gone, and the rod was held on the highest part of the stone (U. S. C. E. b. m. 156/3) 32.329

Digitized by Google

FORT ADAMS QUADRANGLE.

[Latitude 31°-31° 07′ 30″; longitude 91° 30′-91° 37′ 30″.]

Near Point Breeze.

	Feet.
Point Breeze, 1 mile below the upper end of, on land of G. W. Reagan, 80 meters above the line fence between Reagan and Lemley, about 45 meters back of the road along the top of the main right bank, 7 meters south of the southwest corner of the garden fence back of the negro cabin owned by Eli Lennox, 23 meters southwest of the cabin, in the top of a stone monument, 14 inches square on top, standing nearly flush with the ground in a cotton row; top of a copper bolt (U. S. C. E. p. b. m. LI=triangulation station N. E. base)	53.271
Point Breeze, near, 565 meters below p. b. m. LI=triangulation station N. E. base on the side of north and south road along the east side of a cotton field, on the west root of a 3-foot sycamore stump; there is timber east of the road; wire nail (U. S. C. E. t. b. m. 5)	53.753
Point Breeze, 900 meters below the upper end of, 710 meters above p. b. m. LI or triangulation station N. E. base, a little above and in front of a large cabin occupied by Rev. Rickson Jones (colored), the observer of the gage, in the inner face of a 6-inch thorn tree, one of three standing together on the slope of the main right bank, back of willow and cottonwood timber; the gage is nailed to the outer one (U. S. C. E. t. b. m. 4=high-water gage b. m. 49)	52.093
Point Breeze, 66 meters below bench mark 147/3, about 335 meters below the upper end of Point Breeze, along the high bank, 3 meters outside of the road and 8 meters back from the top of the main right bank, the cap on the pipe is about 9 inches above the ground:	
¾-inch copper bolt leaded into a vitrified tile, buried below the surface of the ground	50.151
Top of cap (U. S. C. E. p. b. m. Point Breeze)	54.121
Point Breeze, 270 meters below the upper end of, in the south end of a lane on the top of the main right bank, immediately east of the second cabin below the upper end of the point, occupied by Uriah Pollock, on the top of 6 by 6 inch marking stone, projecting 6 inches from the ground; top of a small square cut (U. S. C. E. b. m. 147/3)	54.501

Near Black Hawk.

Nocks, near, 2½ meters southeast of northeast corner of front gallery of cabin occupied by W. E. Wheat, on land of A. W. Reagan, 13 meters back of new levee, back of and a little above the cotton gin at Knox Landing, the pipe is about in line of front line of gallery:	
Tile and pipe	48.838
Top of cap (U. S. C. E. p. b. m. Knox)	52.828
Black Hawk, near, about 3.25 miles below Black Hawk Landing, in northeast corner of yard surrounding house of A. D. Kirby, overseer for George Scott's Ballymagan plantation, 2 feet from either fence:	
Tile and pipe (U. S. C. E. p. b. m. Ballymagan)	50.633
Top of cap	54.619
Black Hawk, near, in road between levee and fence, 3 meters below lower end of cabin occupied by Lee Kenny (colored), on the Ballymagan plantation, 1.75 miles along levee below Black Hawk Landing, 150 meters below where bench mark 145/4 should be, the pipe being dug up, and levee built over stone, driven vertically into bench cut on southeast root of a 20-inch chinaberry tree; top of 40d. boat spike (U. S. C. E. t. b. m. 13)	55.558

Digitized by Google

Black Hawk, near, 0.75 mile below Black Hawk Landing, a short distance below Black Hawk depot on the railroad, 20 meters above negro church standing just outside of levee on Black Hawk plantation, 5 meters back of levee, on east root of a 3-foot china-berry tree standing in road; top of 30d. wire nail driven vertically into bench (U. S. C. E. t. b. m. 14)..... Feet. 54.685

Black Hawk, near, 0.25 mile above the present Black Hawk Landing, which is at the cotton gin on the river bank, to the right of the steps leading to the east entrance of Mr. George Scott's residence on Black Hawk plantation, in top of granite post buried in the ground; top of stone is about 3 inches above ground; bottom of square cavity (U. S. C. E. b. m. LIII C. & G. S.)... 52.556

Black Hawk, near, 0.75 mile below Grand Cut-off, immediatley in front of residence of A. J. McCleary, and immediately above his store, on west root of a 4-foot pecan tree standing just outside of levee; top of 30d. wire nail driven vertically into bench (U. S. C. E. t. b. m. 15)..... 55.226

Black Hawk, near, 160 meters above Grand Cut-off and about 200 meters above a point opposite Shaw station on the railroad, 80 meters below small house of W. L. Shaw, occupied by M. Rothchild, and 70 meters above store of Rothchild & Co., 8 meters back of levee, on root on roadside of a 30-inch pecan tree standing just outside of fence at small angle in same; top of spike driven vertically into bench (U. S. C. E. t. b. m. 17)..... 57.090

Black Hawk, near, about 0.75 mile below Union Point Landing, 50 meters below Union Point gin, back of road and slough, in southeast corner of yard surrounding house of Tyler Watson on property of Benjamin Newgrass, 2.5 feet from either fence:

Tile and pipe (U. S. C. E. p. b. m. Union Point)..... 53.084

Top of cap..... 57.073

FORTS QUADRANGLE.

[Latitude 29° 15′–29° 30′; longitude 89° 15′–89° 30′.]

Along Mississippi River.

Fort Jackson, about 2.75 miles below, 33 meters back of levee, 13 meters below wire fence around orange grove, 10 meters from an 8-inch tree and 5 meters from a 10-inch hackberry tree, both blazed, on west bank, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 240/3)..... 1.401

Bench mark 240/3, on top of pipe over; top of cap (U. S. C. E. b. m. 240/3 A).. 5.332

Fort Jackson, about 1.3 miles below, on S. Shoenberger's land on west bank, 6.7 meters from the upper boundary of Shoenberger's land and 6 meters back of levee, 2 meters from an orange tree, 54 meters from Shoenberger's house, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 9)..... 1.903

Permanent bench mark 9, on top of pipe over; top of cap (U. S. C. E. p. b. m. 9 A)..... 5.853

Fort Jackson, in the granite block forming the bridge seat at the west abutment of the bridge crossing the moat, 3 inches from the lower flange of the iron stringer of the bridge; vertical copper bolt, marked thus U S ⊙ P. B. M. (U. S. C. E. p. b. m. 10)..... 3.873

Fort Jackson, about 50 meters above the old hospital building at; vertical post gage (U. S. C. E. Fort Jackson gage) below sea level..... −1.602

Digitized by Google

	Feet.
Ordnance sergeant's dwelling, in brick chimney at upper or west end of building known as, west face of chimney, about 10 inches above the ground, in second course below the weatherboarding; upper surface of ship spike driven horizontally, X is cut in brick just under the spike (U. S. C. E. b. m. A)	4.887
Fort Jackson, about 400 meters above, on old levee between new levee and river, in south root of 12-inch willow; spike (U. S. C. E. t. b. m. 61)	4.438
Fort Jackson, about 400 meters above, 35 meters back of the levee, there is a 2 by 3 inch scantling set over the bench mark which projects about 18 inches above the ground, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. experimental b. m.)	.939
Fort St. Philip military reservation, in the bend of levee surrounding, about 100 meters below the fort 109 meters from the river, to monument southeast corner of reservation 321° 06′ 45″ 50.42 meters, to flag staff Fort St. Philip 69° 05′ 10″ 350.4 meters, in vitrified-clay slab in ground on east bank; top of copper bolt (U. S. C. E. b. m. 239/2)	2.605
Fort St. Philip, on top of monument marking the southeast corner of the United States reservation, the bench mark is the point in the obtuse angle at the intersection of the two grooves cut on the surface of the stone; the monument bears the inscription: "1876, F. S. P. R. L. L. U. S." (U. S. C. E. p. b. m. 11)	4.966
Fort St. Philip, in the granite facing of the portal on right-hand side of powder magazine 5, 43 inches above the concrete paving at the entrance of magazine; horizontal copper bolt (U. S. C. E. p. b. m. 12)	6.174

FROGMORE QUADRANGLE.

[Latitude 31° 30′–31° 37′ 30″; longitude 91° 37′ 30″–91° 45′.]

At Frogmore.

Frogmore, in southwest corner of section-house yard of Natchez, Red River & Texas Ry., on east bank of Otts Bayou, 10 meters north of track and 11 meters east of trestle over Otts Bayou:	
Bolt in stone (U. S. C. E. p. b. m. 2)	56.752
Top of cap on iron post	60.820

GIBSLAND QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 93°–93° 15′.]

From Gibsland west to Dubberly.

Gibsland, in northeast corner of Colbert Hotel yard, 1.3 meters south and 1.4 meters west of northeast fence corner, 31.6 meters south of center of track:	
Bolt in stone underground (U. S. C. E. p. b. m. 37)	242.237
Top of cap on iron post	246.305
Taylor station, in northeast corner of gin yard, 12.5 meters north and 8.3 meters east of northeast corner of gin, and 17.5 meters south of center of track:	
Bolt in stone underground	218.563
Top of cap on iron post (U. S. C. E. p. b. m. 38)	222.631
Dubberly, in southeast corner of yard of P. H. McCary, 1.1 meters north and 1 meter west of fence corner, 11.8 meters from southeast corner of brick chimney at south side of house;	
Bolt in stone underground (U. S. C. E. p. b. m. 39)	256.230
Top of cap on iron post	260.298
Dubberly, near, 25 meters west of bridge 294, 3 meters south of track, on steel rail; cross (U. S. C. E. t. b. m. 91a) (Vicksburg, Shreveport & Pacific Ry. b. m.)	268.812

Digitized by Google

GLASS QUADRANGLE.

[Latitude 32° 07′ 30″–32° 15′; longitude 90° 52′ 30″–91°.]

Near Griffin.

	Feet.
Griffin, near, on southwest root of a 30-inch pecan tree standing 4 meters north of permanent bench mark Griffin, driven vertically into bench; top of boat spike (U. S. C. E. t. b. m. 193)	89.547
Griffin, near, on property of Muench & Sons, in field, 0.75 mile back of left bank of river, about 1 mile below the present Bedford Landing along the levee, 755 meters in a southwesterly direction and along levee from a right angle in same, 21 meters back or north of base of levee at another angle in same, 4 meters south of blazed 30-inch pecan tree bearing temporary bench mark 193, and 86 meters east of another 30-inch pecan tree that stands at base of levee, near former bench mark 110/4, which could not be found, about ½ mile south of Griffin post office and Bedford store; tile and pipe (U. S. C. E. p. b. m. Griffin):	
Bolt in tile	86.371
Top of cap on iron pipe	90.374

GUMRIDGE QUADRANGLE.

[Latitude 31° 45′–31° 52′ 30″; longitude 91° 15′–91° 22′ 30″.]

Near Goldman.

Goldman, near, in the yard surrounding the old Melwood plantation house on right bank, owned by G. C. Goldman, 700 meters back, along levee, from Goldman Landing, 290 meters below square angle in levee where it turns north to continue up river, in southeast or upstream corner of yard, 0.8 meter from either fence; tile and pipe (U. S. C. E. p. b. m. Melwood):	
Bolt in tile	68.914
Top of cap on iron pipe	72.907
Goldman, near, at junction of levees back of Goldman Landing, rod held on west edge of pipe; top of levee bench-mark pipe (U. S. C. E. t. b. m. 114= t. b. m. 65a for high-water gage 65)	82.139
Goldman, near, on right bank, on property of G. C. Goldman, and known as Miller's ridge, about 2¼ miles above Goldmans Landing, 800 meters above upper road crossing to levee to Kempes Landing, it sets 3 feet southwest of southwest corner of fence surrounding small cabin occupied by Issac Kennedy (colored), 98 meters back of base of levee and 400 meters below junction of new loop with old levee; in field, cleared in woods; tile and pipe	63.287
Goldman, near, on southwest corner of a 6-foot triple cypress tree, standing 4½ meters north of permanent bench mark Stackhouse, driven vertically into bench; top of 30d. boat spike (U. S. C. E. t. b. m. 120)	62.234
Goldman, near, on top of south bank of a bayou, ½ meter west of a wire fence, 4½ meters south of two large cypress trees, standing at the water's edge in bayou, blazed with triangles facing pipe, on property of Mr. Stackhouse, rented by Charles Miller (colored), who lives in the house on same bank of bayou, 64 meters back of pipe, 63 meters back of inner base of levee, about 80 meters above prominent angle in the levee, on right bank in upper part of Kempes Bend and 1,500 meters below the present Beelers Landing, 2½ miles below the plantation residence of Mr. Frank C. Curry on the Villa Clara plantation and former Beelers Landing:	
Tile and pipe (U. S. C. E. p. b. m. Stackhouse) bolt in tile	60.607
Top of cap on iron post	64.619

Digitized by Google

HAHNVILLE QUADRANGLE.

[Latitude 29° 45′–30°; longitude 90° 15′–90° 30′.]

From St. Rose to Sellers along Mississippi River.

St. Rose, on Destrehan plantation, on the granite sill under the middle of a small iron gate to footway on the west side of the large iron gate at the main entrance to the yard in front of Judge Rost's house, about 12 meters from the inner base of the levee; a point in a square cut, marked U S ⊡ B M

(This bench mark was moved back about 100 feet in the summer of 1894, when a new levee was built) (U. S. C. E. p. b. m. V) ..... Feet. 15.141

Hahnville, nearly opposite, on top of the southwest corner of the pedestal under the column on the eastern side of the steps at the front entrance of Edward Sarpy's house on Prospect plantation, the pedestal is of brick, covered with hard stucco, 14 meters back from the inner base of the levee, marked 10 U S ⊡ B M 80; a point in a square cut (U. S. C. E. p. b. m. VI) 13.691

Sellers, near, about one-half mile below Gipsy plantation, on the estate of Marcellus Roussel, in front of the house, at the foot of a large pecan tree, buried beneath the surface of the ground and covered over with earth, 1 foot and 1.5 feet, respectively, from two nails driven in projecting roots of the tree, the tree is blazed with a triangle facing the bench mark; the head of an iron bolt in a cement post (U. S. C. E. p. b. m. VII) 15.800

Along Yazoo & Mississippi Valley R. R.

Kenner, one-fourth mile above landing, in lane leading to swamp ½ meter east of west fence of lane, 2 meters south of an east and west ditch which crosses lane about 150 meters south of line of timber, lane is the one 27 meters west of bench mark 208/2 and runs north and south:

Copper bolt in center of tile 0.072

Top of cap (b. m. 208/2 not recovered in 1897–98) 3.983

NOTE.—Described in the 1894 report as back of fence, back of road, back of levee, in upper part of Kennerville, 27 meters below first street in upper part of town. House occupied by E. Stahl (white) is on opposite corner. Bench mark is just below a prominent bend in levee, 50 meters above house occupied by Walter Davis (colored) (U. S. C. E. p. b. m. 208/1.

Patterson plantation, about 0.25 mile below landing, on right of way of railroad, 15 rail lengths above a road crossing, on upper side of third ditch above road, 17 rail lengths below milepost 14, 10 rail lengths below levee on line between plantations of Patterson and Rose; 400 meters west of old Almadia sugarhouse:

Copper bolt in center of tile 3.173

Top of cap on iron pipe (U. S. C. E. b. m. 207/1) 7.139

Pecan Grove plantation, about ¼ mile above old incline of Texas & Pacific R. R., on right of way of railroad, 7 meters in front of track, 125 rail lengths below milepost 17, 48 rail lengths below upper switch to siding:

Copper bolt in center of tile (U. S. C. E. b. m. 206/1) 6.489

Top of cap on iron pipe 10.420

Digitized by Google

Good Hope plantation, about ¼ mile below Government light on, near line between Good Hope and Prospect plantations, on railroad right of way, on line of front row of telegraph poles, 32 rail lengths below Sarpy station, 4¾ rail lengths below lower switch stand, 6 meters in front of track; between the fifth and sixth ditch below the lower section house; at fifth telegraph pole below telegraph station:

	Feet.
Copper bolt in center of tile (U. S. C. E. b. m. 204/1)	1. 549
Top of cap on iron pipe	5. 505

HAILE QUADRANGLE.

[Latitude 32° 45′–33°; longitude 92°–92° 15′.]

Along Ouachita River.

Mill Bayou, on the left bank and 250 meters above the mouth of, about 20 meters above a marked bend of the top bank of bayou and witnessed by three triangular blazed trees as follows: 0.7-meter sweet gum 154° 20′, 14 meters; 0.4-meter sweet gum 206° 47′, 13 meters; 0.8-meter red oak 342° 05′, 15 meters; top of cap on iron post (U. S. C. E. p. r. p. Cashill) 71. 768

Fishtrap Shoals, about 500 meters below, in woods about 80 meters west of west bank of river and witnessed by three triangular blazed trees as follows: 0.5-meter red oak 24° 30′, 7.5 meters; 0.4-meter water oak 228° 44′, 8.5 meters; 0.5-meter water oak 310° 41′, 70 meters:

Bolt in stone underground (U. S. C. E. p. r. p. Fishtrap)	69. 888
Top of cap on iron post	73. 956

Alabama Landing, on south side of road on outside of fence inclosing stock yard, 50 meters from west corner and 80 meters from east corner, and 45 meters southwest of store, witnessed by three triangular blazed trees as follows: 0.4-meter post oak 78° 11′, 17.3 meters; 0.7-meter gum 197° 43′, 29.3 meters; and 0.4-meter post oak 302° 27′, 16.8 meters:

Bolt in stone underground (p. r. p. Alabama)	69. 856
Top of cap on iron post	73. 924

Frank Pierre Creek, on left bank and about 500 meters above mouth of, 250 meters west of west bank of river and about 10 meters above mouth of slough, witnessed by three triangular blazed trees as follows: 0.6-meter post oak 109° 00′, 10 meters; 0.4-meter pecan 223° 18′, 23 meters, and 0.6-meter post oak 269° 56′, 23 meters:

Bolt in stone underground (p. r. p. Frank Pierre)	56. 204
Top of cap on iron post	60. 272

Shiloh Shoals, about 200 meters above, about 90 meters west of west bank of river and 100 meters from camping grounds on the bank of river; witnessed by three triangular blazed trees as follows: 0.3-meter post oak 59° 29′, 6 meters; 0.9-meter white oak 148° 24′, 12 meters; and 0.4-meter white oak 309° 48′, 15 meters:

Bolt in stone underground (p. r. p. Shiloh)	57. 024
Top of cap on iron post	61. 092

HANNA QUADRANGLE.

[Latitude 31° 45′–32°; longitude 93° 15′–93° 30′.]

At Upper Brownsville plantation.

Upper Brownsville plantation, in northeast corner of garden back of a negro cabin standing about 600 meters southeast of Lake End Landing and 300 meters from bank, 10 meters southeast of southeast corner of cabin:

Bolt in stone underground	126. 601
Top of cap on iron post (U. S. C. E. p. b. m. 59)	130. 669

Digitized by Google

HARRISONBURG QUADRANGLE.

[Latitude 31° 45′–32°; longitude 91° 45′–92°.]

From Coles Landing southeast along Ouachita River to Harrisonburg.

	Feet.
Coles Landing, in southwest corner of field belonging to V. Thompson, 16 meters east of Wade Bayou, 20 meters north of east bank of river, and 4 meters east of road:	
Bolt in stone underground (U. S. C. E. p. b. m. 13)	60.882
Top of cap on iron post	64.950
Cottingham Landing, 300 meters northwest of east bank of river and 22 meters west of road, on top of ridge and 8 meters from sloping bank leading into adjacent swamp:	
Bolt in stone underground (U. S. C. E. p. b. m. 14)	58.176
Top of cap on iron post	62.244
Danville, in northwest corner of horse lot adjoining residence of Mr. Baughman, 80 meters west of right bank of river and 85 meters south of right bank of Bayou Dan; bolt in stone (U. S. C. E. b. m. B)	60.535
Sawmill and H. T. Young landings, between, on property of P. H. Carter, about 100 meters from bank of river and 2.3 meters inside of field from fence; bolt in stone underground (U. S. C. E. b. m. A)	60.243
Staffords, 70 meters west of west bank of river, 30 meters southwest of southwest corner of Mr. Stafford's house and opposite mouth of Boeuf River:	
Top of head of copper bolt leaded in stone 56 by 40 centimeters (U. S. C. E. p. b. m. 8)	56.683
Top of cap on iron post	60.751
Catahoula Shoals, 12 meters back from west bank of river, grove of small pines, and 25 meters from southeast corner of old cabin in abandoned field:	
Bolt in stone underground	57.510
Top of cap on iron post (U. S. C. E. p. b. m. 7)	61.578
Harrisonburg, in front of, 7 meters northeast from corner of fence, on west bank of river, in top of northeast corner of stone 0.8 by 0.4 by 0.8 meter; cross cut (U. S. C. E. t. b. m. H)	60.617
Harrisonburg, in courthouse yard, on east face of northeast corner of clerk's office, on first brick above projecting course of brick almost level with surface of ground; V mark (U. S. C. E. b. m. V)	67.693
Harrisonburg, 34 centimeters from southwest corner of Catahoula Parish jail, 14 centimeters above stone foundation on west side, in upper edge of second course of brick, on second brick from corner; center of cross cut on head of copper bolt, letters U. S. cut in brick (U. S. C. E. p. b. m. 6)	79.393

HOSSTON QUADRANGLE.

[Latitude 32° 45′–33°; longitude 93° 45′–94°.]

Near Millers Bluff.

Millers Bluff, about 7 miles west of Plain Dealing, Bossier Parish, in the southwest corner of yard of Jake Lusk, 5 meters north of road and 400 meters from bank of Red River at Lusks Ferry and on edge of crest of hills known as Millers Bluff; pipestone bench (U. S. C. E. p. b. m. Lusk):	
Copper bolt in stone	229.540
Top of cap on iron post	233.608
Millers Bluff, about 8 miles west of Plain Dealing, Bossier Parish, 250 feet from left bank of Red River and 160 feet below Posten Bayou, near mouth; pipestone bench (U. S. C. E. p. r. p. 25) (Red River survey):	
Copper bolt in stone	198.654
Top of cap on iron post	202.722

Digitized by Google

KEITHVILLE QUADRANGLE.

[Latitude 32° 15′–32° 30′; longitude 93° 45′–94°.]

From Greenwood east along Texas & Pacific R. R. to Shreveport.

	Feet.
Greenwood, in the top of a concrete abutment on the Texas & Pacific R. R., 600 feet east of Texas & Pacific R. R. station, in south side of west abutment, 30 inches from the east and 20 inches from the south edge of the concrete, the bolt is five-eighths inch in diameter and projects about one-half inch above the surface of the abutment; intersection of two lines in end of copper bolt (C. & G. S. b. m. C)	219. 646
Nichols, 11 paces south of the track, 4 paces south of the second telegraph pole west of milepole 874, two poles east and across the tracks from the switch stand at the east end of the siding; and is the bottom of a square hole cut in the top of a rough limestone post, marked "U. S." (C. & G. S. b. m. D).	275. 364
Jewella, 12 paces north of the track, in an angle formed by the right of way fence and the fence crossing the tracks about 250 feet east of station; bottom of square hole cut in the top of a limestone post (C. & G. S. b. m. E)	244. 311

KELLOGG LANDING QUADRANGLE.

[Latitude 32° 07′ 30″–32° 15′; longitude 91°–91° 07′ 30″.]

Near King.

King, near, directly back of Collins Landing, about 600 meters below New Carthage Landing, 44 meters back of base of levee, 9 meters back of fence that surrounds Collins's house, 10 meters west of permanent bench mark Leona, standing in field on Leona plantation, owned by H. C. Collins, driven vertically into bench cut on southwest root of 3-foot pecan tree, a blazed triangle is on tree over bench mark; top of boat spike (U. S. C. E. t. b. m. 180)	80. 108
King, near, on property of H. C. Collins, and known as the Leona plantation, directly back of Collins Landing and 600 meters below New Carthage Landing, in southwest corner of Collins's yard, 2½ feet from either fence, and 44 meters back of base of levee, a lone 3-foot pecan tree that bears temporary bench mark 180 stands in field 10 meters west or below bench mark:	
Tile and pipe (U. S. C. E. p. b. m. Leona), bolt in tile	77. 191
Top of cap on iron post	81. 171
King, near, 70 meters above angle in levee, which is 1,500 meters above the prominent angle in levee opposite King post office, 110 meters above cabin, occupied by Joseph Gater (colored), on House plantation owned by Henry House, on bank of Bayou Vidal, on southeast root of a 3½-foot pecan tree, standing 12 meters back of base of levee, driven vertically into bench; top of a 30d. boat spike (U. S. C. E. t. b. m. 183)	86. 374
King, near, 2½ miles above, 2 miles below a point on the levee opposite the foot of Diamond Island, it is on the south bank of a ditch, 10 meters southeast of a small bridge over this ditch, 45 meters back or north of center of levee, 5 meters above or east of center of road which crosses levee on a very large ramp, a 12-inch cottonwood stands southeast 5 meters, with a blazed triangle facing the pipe, at the edge of scattering timber, brush, and vines, 465 meters above where fence crosses levee at upper or east side of a long field along southeast bank of Bayou Vidal, 622 meters above angle in levee, where it leaves Bayou Vidal, opposite cabin occupied by Link Courteney (colored), bench mark is on Chelula plantation, owned by T. P. Kelly, of King post office; tile and pipe (U. S. C. E. p. b. m. Chelula):	
Bolt in tile	75. 013
Top of cap on iron post	78. 996

Digitized by Google

King and Griffin, between, in Madison Parish, 3 miles below present Bedford Landing by the levee, about 5 miles below Warrenton, Miss., by river, about 1 mile back of the right bank of river, 200 meters back from the base of the levee, on Crystal Springs plantation, in the east chimney of dwelling house of O. Christmas, in brick the second from the southeast edge of the chimney, and is in the twelfth course from the ground; center of head of copper bolt (U. S. C. E. b. m. 232, C. & G. S.) ..... Feet. 87.861

LAKE BRUEN QUADRANGLE.

[Latitude 31° 52′ 30″–32°; longitude 91° 07′ 30″–91° 15′.]

From St. Joseph northeast along Mississippi River to Hard Times.

St. Joseph, near, on right bank in field on land of George Wallace, 15 meters in front of base of new levee, on upper slope of ramp where road crosses levee, 360 meters above house of George Wallace, a large barn outside levee stands in field about 100 meters above the bench mark, it is about 1 mile above the head of Rodney Island and 1¾ miles below the lower St. Joseph Landing; flat stone and pipe (U. S. C. E. b. m. 118/4):

Bolt in stone 66.919

Top of cap on iron post 71.972

St. Joseph, near, in the north face of brick chimney of gin house on Duck Pond plantation, owned by Capt. Robert Worrell, in fifth brick from northeast edge of the chimney, in seventh course below the projecting course, the gin is about 2,000 meters below the town of St. Joseph, 500 meters back of St. Joseph Lower Landing; center of head of copper bolt leaded horizontally (U. S. C. E. b. m. 291, C. & G. S.) 76.716

St. Joseph, driven horizontally into west side of large cottonwood tree bearing high-water section of gage and is 40.89 feet on gage, the lower one of 11 large cottonwoods nearly in a row along outside of spur levee; top of head of large boat spike (U. S. C. E. b. m. A (1892)=St. Joseph M. R. C. gage b. m.) 73.884

St. Joseph, on right bank on property of Capt. Robert Worrell, just back of and a little above lower St. Joseph Landing, on inner slope of small spur levee, 145 meters above warehouse and gage bulletin, 1½ meters south of fence crossing levee and leading back to Capt. Worrell's residence, a blazed 30-inch pecan tree stands 5 meters north of pipe on inner slope of levee, a 4-foot blazed cottonwood stands at outer base of levee, 13 meters southeast of pipe, and is the upper one of eleven large cottonwoods nearly in a row along the outside of spur levee, another blazed 4-foot cottonwood stands at the junction of fences 18 meters southwest of pipe; tile and pipe:

Bolt in tile 72.677

Top of cap on iron post (U. S. C. E. p. b. m. Worrell) 76.673

Rodney, near, in Claiborne County, Miss., opposite St. Joseph, La., on left bank, opposite a point about midway between the upper and lower St. Joseph landings, on Woodland plantation about 250 meters below the house of Neal Bailey (colored), 2 feet outside of fence of small inclosure, 24 meters above a small cabin, 128 meters back of top of left bank of river, a blazed 30-inch pecan tree stands east of south 32 meters, a blazed 30-inch pecan stands north of west 62.5 meters, and a blazed 14-inch honey locust tree stands south 18.5 meters; tile and pipe (U. S. C. E. p. b. m. Woodland):

Bolt in tile 76.050

Top of cap on iron post 80.049

St. Joseph, just back of the southwest corner of the old Masonic Hall, on south root of a 30-inch soft maple tree; top of 30d. boat spike driven vertically into bench (U. S. C. E. t. b. m. 136) 73.897

Digitized by Google

St. Joseph, in courthouse square in lower end of town of, in outer middle half of square, 57 meters back of levee in line with a 36-inch gum tree and near door of old Masonic Hall, 10 meters from rear steps of Masonic Hall, and 2½ meters from said gum tree, a 30-inch soft maple tree bearing t. b. m. 136 stands 10 meters southeast of pipe; tile and pipe:

	Feet.
Bolt in tile	70.669
Top of cap on iron post (U. S. C. E. p. b. m. St. Joseph)	74.655

St. Joseph, near, about 2,000 meters above the town of, about 1,500 meters below where levee crosses Bayou Bruin, on Panola plantation, owned by J. M. Gillespie, in center of face of fourth brick from northeast corner, twenty-third course from ground of brick chimney of gin house; center of hole (the copper bolt being gone) (U. S. C. E. b. m. 286) 82.798

St. Joseph, near, 61 meters northeast of northeast bank of Bayou Bruin, 1,600 meters along levee above the Panola gin, 118 meters west of square angle in levee, 1,400 meters back of Claggett Landing, 25 meters west of Bruin Bayou store, run by Geary Neal, on Chetwind plantation, 1.3 meters east of the corner of fence on east side of lane leading in a northwesterly direction to go to Bruin Island, ½ meter south of fence around garden on west side of the Bruin Bayou store, on right bank; tile and pipe (U. S. C. E. p. b. m. Bruin):

Bolt in tile	73.989
Top of cap on iron post	77.982

W

St. Joseph, near, 250 meters below junction of levees back of Claggett Landing, on north slope of levee, on southeast root of a 15-inch gum tree; top of boat spike driven vertically into bench (U. S. C. E. t. b. m. 141) 80.111

St. Joseph, near, on top on north bank of Catfish Bayou, on Botany Bay plantation, on right bank, owned by Mr. James Curry, 32 meters south or downstream, from southeast corner of gin, and 34 meters west of inner base of levee, 7 meters west of gate leading into gin-house yard from ramp over levee of road leading to Bondurant Landing, about 1 mile from river along road along south side of Catfish Bayou, 1 meter northeast of junction of wire fence, about east of Mr. Curry's house, which stands on bank of Lake Bruen; tile and and pipe (U. S. C. E. p. b. m. Botany Bay):

Bolt in tile	72.946
Top of cap on iron post	76.929

Hard Times Landing, near, on Winter Quarters plantation on right bank, owned by J. M. Gillespie, about 2 miles northeast of Lake Bruen, and ¾ mile back of bank of river, 1 mile above a prominent angle in levee, 1½ miles below junction of old and new levees, 8 meters back of base of levee, 3 meters south of ditch and 10 meters above center of road that runs back to plantation residence and store, same road crosses levee and runs straight out to river to a point ¼ mile below end of levee and U. S. light; tile and pipe (U. S. C. E. p. b. m. winter quarters):

Bolt in tile	71.621
Top of cap on iron post	75.607

LAKE JATT QUADRANGLE.

[Latitude 31° 30′–31°45′; longitude 92° 30′–92° 45′.]

Near Colfax.

Colfax, about 6.4 kilometers above town of, on right bank, opposite dwelling house on plantation of Isaac McMills and bench, is referenced as follows: No. 1, blazed oak tree southwest of bench, 6 meters distant; No. 2, blazed oak northwest of bench, 11 meters distant; No. 3, Triangulation 248 north of bench, 70 meters distant; Triangulation 248 is on river bank, 260 meters below mouth of small bayou:

Bolt in stone underground (U. S. C. E. p. b. m. 68)	86.696
Top of cap on iron post	90.764

Digitized by Google

Colfax, at southeast corner of Second and Main streets, in northwest corner of courthouse yard, 8.4 meters north of north wall of courthouse and 16.2 meters west of west wall: Feet.

Bolt in stone underground (U. S. C. E. p. b. m. 69) 96.283

Top of cap on iron post 100.351

LE COMPTE QUADRANGLE.

[Latitude 31°–31° 15′; longitude 92° 15′–92° 30′.]

Along Red River.

Alexandria, about 8 kilometers below, right bank, on plantation of C. O. Harris, near a cabin standing 32 meters west of a point on levee which is 22.5 meters below bend in levee opposite and a little above Cannon's wood yard, 6.3 meters north of north wall of cabin, 17.2 meters east of east wall, and 16 meters back of levee:

Bolt in stone underground 72.536

Top of cap on iron post (U. S. C. E. p. b. m. 75) 76.604

Grand Bend, on neck of, on Peart's plantation, about midway on neck at side of fence dividing pasture and thicket, on thicket side, same as triangulation southwest base of Grand Bend base line; bolt (U. S. C. E. p. b. m. 76). 71.128

Jones Quarter Landing, near, about 300 meters below the landing, 10 meters south of parish road, 12 meters from base of State levee, and 81 meters back from bank of Red River, on property of Frank White, 1 meter from division line of Polyte Smith:

Bolt in stone underground (U. S. C. E. p. b. m. 77) 66.335

Top of cap on iron post 70.403

MABEL QUADRANGLE.

[Latitude 31° 37′ 30″–31° 45′; longitude 91° 22′ 30″–91° 30′.]

From Bullitt Bayou north to L'Argent.

Bullitt Bayou, near, 25 meters back of inner base of levee, 21 meters above the Sycamore store, on Sycamore plantation owned by A. T. Caloit, run by H. W. Carter, agent, on right bank, halfway between store and gate to the road leading back to the plantation house, 500 meters above a point opposite foot of Vidal Island, 1½ meters back of fence; tile and pipe:

Bolt in tile 62.080

Top of cap on iron post (U. S. C. E. p. b. m. Sycamore) 66.056

Bullitt Bayou, near, on the property of A. H. Gillespie, near river side of Vidal Island and near its middle from head to foot, tree is at inner base of levee, 35 meters from a little below Potowamac gin, tree is 19 meters southwest of permanent bench mark Vidal, on root on inner or land side of a 30-inch lone thorn tree; top of boat spike driven vertically (U. S. C. E. t. b. m. 92) 65.613

Bullitt Bayou, near, on the property of A. H. Gillespie, about the middle of river side of Vidal Island, 30 meters back from bank of old Lake Concordia, and about 300 meters above colored Baptist Church, in line with the lower wall of the Potowamac gin, and 27 meters out from same; 8 meters back of base of levee, 1 meter out from fence, 2½ meters below cotton storehouse, and 19 meters northeast of a lone 30-inch thorn tree bearing temporary bench mark 92 and blazed with a triangle facing the pipe; tile and pipe (U. S. C. E. p. b. m. Vidal):

Bolt in tile 62.769

Top of cap on iron post 66.765

Digitized by Google

Bullitt Bayou, near, in line of fence at upper end of Vidal Island, about ⅞ mile by road westwardly from main levee, 40 meters north of bank of Lake Concordia, and about 360 meters below or westwardly from the uppermost cabin on island, and about 125 meters eastwardly from another cabin, on the outer or south root of 24-inch pecan tree; top of boat spike driven vertically into bench (U. S. C. E. t. b. m. 93) ..... Feet. 69.104

Bullitt Bayou, near, in line of fence, back of road, back of levee, 25 meters below or west of, bench mark 129/4, on root of levee side of a 24-inch pecan tree; top of boat spike driven vertically into bench (U. S. C. E. t. b. m 95) .. 61.906

Bullitt Bayou, near, in field on north side of road north of levee, 143 meters above junction of levees and 85 meters below where road leads back through Grasmere plantation, 34 meters below one and 25 meters above another blazed 2-foot pecan tree in fence line, the lower or westerly one bears temporary bench mark 95, 700 meters back or north of former Good Hope Landing now abandoned on account of sand bar in front, 1,400 meters up old levee from present Bullitt Bayou Landing, 2 meters back of fence line; tile and new pipe (U. S. C. E. b. m. 129/4):

Tile underground 58.402

Top of cap on iron post 62.401

Bullitt Bayou, near, 1 meter outside of fence, 475 meters below angle in levee, and 860 meters above bench mark 129/4, this tree is the lower one of two large pecans standing 25 meters apart, on south root of a 3-foot pecan tree; top of 30d. boat spike driven vertically into bench (U. S. C. E. t. b. m. 96) .. 62.736

Mabel, near, at back or northwest edge of borrow pit (water in it) and 24 meters toward angle in levee from permanent bench mark Vaucluse, driven vertically into center of 6-inch honey locust stump; top of 30d. boat spike (U. S. C. E. t. b. m. 98) 66.404

Mabel, near, about 400 meters up levee from prominent angle at junction with old levee where it runs out to river, there is a large cluster of cabins below this road which passes just below the bench mark; 50 meters west of inner base of levee at prominent angle where it turns upriver, 1 meter southeast of fence around yard of a large double cabin 5 meters northeast of center road leading back across the Vaucluse plantation, George Kelly, owner, William Dicks, agent:

Tile and pipe (U. S. C. E. p. b. m. Vaucluse) 64.088

Top of cap on iron post 68.041

Mabel, near, in field on James Branham's plantation, 210 meters north of old road along Lake St. John, back of the present Gibson Landing, and directly back of where landing road crosses levee, 226 meters back of base of levee:

Flat stone and pipe 61.033

Top of cap on iron post (U. S. C. E. b. m. 127/4) 66.076

L'Argent, near, 6 meters back of base of levee on Hole-in-the-Wall plantation, just back of the former Hole-in-the-Wall Landing, now obsolete on account of willow bar in front, 144 meters above the Hole-in-the-Wall store, and 470 meters above a prominent angle in levee, triangle blazed on tree above nail, standing in road 2 meters outside of fence, on root on levee side of 30-inch pecan tree; top of wire nail driven vertically into bench (U. S. C. E. t. b. m. 103) 65.932

L'Argent, near, ⅔ meter above one fence and 2¾ meters out from another in small stable lot, below cabin of Amos Daniel (colored), on Monana plantation, run by J. A. Turpin, 200 meters below the old Monana Landing now obsolete, 40 meters back of levee, 150 meters above road running back to New Quarters Lake, past Mr. Turpin's house, 840 meters below where levee crosses L'Argent Bayou, rod was held on south edge of hole in stone, it being highest part of stone, stone is about 1 foot above ground; stone post (U. S. C. E. b. m. 126/3) 65.873

Digitized by Google

L'Argent, near, on slope of east bank of L'Argent Bayou, back of road back of levee, 118 meters toward the river and landing from L'Argent post office, on south root of a 5-foot cottonwood tree; top of 30d. boat spike driven vertically into bench (U. S. C. E. t. b. m. 104) ..... Feet. 59.688

MANIFEST QUADRANGLE.

[Latitude 31° 30′–31° 45′; longitude 91° 45′–92°.]

From Trinity to Eva.

Trinity, on property of Guss estate immediately back of kitchen back of house, 0.9 meter from west fence and 10 meters from south fence:
- Bolt in stone (U. S. C. E. p. b. m. 5) 53.940
- Top of cap on iron post 58.008

Jonesville, in northeast corner of lot of Dr. Baker and adjoining his drug store, and 23 meters from corner of streets:
- Bolt in stone (U. S. C. E. p. b. m. 4) 54.334
- Top of cap on iron post 58.402

Black River station, 35 meters east of left bank of Black River, opposite mouth of Little River, 25 meters from railway track, 65 meters north from depot platform:
- Bolt in stone 51.529
- Top of cap on iron post (U. S. C. E. p. b. m. 3) 55.597

Jones Bayou, at head of, on south bank of Jones Bayou and east side of public road on Nicholia place; top of cap on iron post (U. S. C. E. p. b. m. 5a) 59.242

McClures Landing, 400 meters below, 28 meters west of west bank of river, and 16 meters south of building used as church on McClure place, on property of Joe Montgomery in fence corner at head of lane going across neck; top of cap on iron post (U. S. C. E. p. b. m. 6a) 56.083

Eva post office, 10 meters west from left bank of Black River, 222 meters north from gin at Calhouns Landing, and 63 meters north of N. Calhoun's residence; top of cap on iron post (U. S. C. E. p. b. m. 7a) 53.911

MARKSVILLE QUADRANGLE.

[Latitude 31°–31° 15′; longitude 92°–92° 15′.]

From Poland along Red River to Mansura.

Once More Landing, about 3.1 kilometers below Poland post office, situated in lower rear fence corner of George Wilson's horse lot:
- Bolt in stone underground (U. S. C. E. p. b. m. 78) 60.876
- Top of cap on iron post 64.944

David Ferry, about 400 meters above road to Marksville, near the middle of northwest face of chimney at southwest end of house occupied by Mr. Laborde, which is on right bank of Red River, in hemispherical head of copper bolt leaded horizontally into seventeenth course of brick above the footing; horizontal cut, letters U. S. B. M. are cut into the brick (U. S. C. E. p. b. m. 80) 66.368

Normands Landing, on right bank of Red River, near middle of south face of chimney at south end of house occupied by R. L. Reynaud, in sixteenth course of brick above footing, in head of copper bolt leaded horizontally; center of horizontal cut (U. S. C. E. p. b. m. 81) 61.539

Normands Landing, near middle of east face of chimney at east side of house occupied by William Vanosdell and owned by R. L. Reynaud, in head of copper bolt leaded horizontally into twelfth course of brick above footing; center of horizontal cut (U. S. C. E. p. b. m. 82), letters B. ⊖ M. cut in brick 61.808

Digitized by Google

Marksville, about middle of east (Washington Street) side of parish courthouse, between the east door and the window near front side, in head of copper bolt leaded horizontally into eighteenth course of brick above ground; horizontal cut, marked "U. S. ⊖ B. M." (United States signal office is east of courthouse) (U. S. C. E. p. b. m. 83) ..... Feet. 87.516

Mansura, in northwest pier of gallery of unoccupied store owned by David Siess, on east side of road, store is about 30 meters south-southwest of David Siess's dwelling and about 85 meters southeast of F. Regard's store, in head of copper bolt leaded horizontally; horizontal cut, marked "B ⊖ M" (U. S. C. E. p. b. m. 84) 76.420

Mansura, near southern limits of, in nineteenth course of brick above ground, on south side of chimney at west end of Mme. Victor Claude's dwelling on north side of road leading to Moreauville; in head of copper bolt leaded horizontally; horizontal cut, marked "U. S. ⊖ B. M." (U. S. C. E. p. b. m. 85) 79.682

Egg Bend Landing, near, 4 meters from road and 48 meters from levee, in top of jar on James Adams's place; nail (U. S. C. E. t. b. m. 23=triangulation 362) 63.560

Marksville, about 8 miles northeast of, near Murrays Landing, about 6 miles east of Vick, in northwest corner of yard to residence of Mr. John White, 1 kilometer below lower end of Saline Point, 33 meters from right bank of Red River, 8 meters west from west end of house, and 11 meters north of north line of porch on north side (front) of house; pipe-flange bench (U. S. C. E. p. b. m. White) 54.472

Barbin Landing, in the back downstream corner of yard to residence, 17 meters south of gate in east fence of yard and 40 meters southwest of southwest corner of warehouse; pipe-flange bench (U. S. C. E. p. b. m. Barbin) 57.982

MILLIKENS BEND QUADRANGLE.

[Latitude 32° 22′ 30″–32° 30′; longitude 91°–91° 07′ 30″.]

Near Millikens Bend.

Millikens Bend, about 1¼ miles below, on River View plantation, in brick pillar supporting northeast corner of porch of dwelling house belonging to Citizens' Bank of Louisiana; center of head of copper bolt (U. S. C. E. b. m. 184) 94.832

Millikens Bend, three-fourths mile above, on English Field plantation, in sixth brick from top of foundation and third one from northwest corner of Mr. H. P. Morancy's dwelling house; center of copper bolt (U. S. C. E. b. m. 179) 97.953

MINDEN QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 93° 15′–93° 30′.]

From Sibley west along railroad to Haughton.

Sibley, in northwest corner of Mr. Allison's yard, 1.1 meters south and 0.8 meter east of fence corner, 28.8 meters south of center line of track, and 15 meters from northwest corner of house:

Bolt in stone underground (U. S. C. E. p. b. m. 40) 189.261

Top of cap on iron post 193.329

Bayou Dorcheat, on east bank of, near Vicksburg, Shreveport & Pacific Ry. bridge, in direct range of second bent of east bridge approach, 22 meters south of center of track, and 20.5 meters east of draw span of bridge:

Bolt in stone underground 141.191

Top of cap on iron post (U. S. C. E. p. b. m. 41) 145.259

Digitized by Google

Doyle station, in northwest corner of field owned by D. B. Doyle, 45 meters south of Farmers' Alliance Building, 30 meters southeast of southeast corner of Doyle's store, and directly southwest from station platform: Feet.

Bolt in stone underground 223.500
Top of cap on iron post (U. S. C. E. p. b. m. 42) 227.568

MONTGOMERY QUADRANGLE.

[Latitude 31° 30′–31° 45′; longitude 92° 45′–93°.]

St. Maurice, in southeast corner of inclosure southeast of E. W. Tedlie's store, 0.8 meter northwest of northwest line of front gallery and 5.2 meters southwest of southwest line of store:

Bolt in stone underground (U. S. C. E. p. b. m. 64) 107.821
Top of cap on iron post 111.889

Dunns Landing, near a cabin standing 375 meters above, on plantation of C. C. Dunn, 5.1 meters south of south wall of cabin and 8 meters east of east wall:

Bolt in stone underground (U. S. C. E. p. b. m. 65) 104.875
Top of cap on iron post 108.943

Montgomery, about 1.5 kilometers below town of, on right bank, on plantation of Dr. R. E. Jackson, in northeast corner of Dr. Jackson's yard, 31.6 meters east of east wall of house and 23.3 meters north of north wall:

Bolt in stone underground 99.298
Top of cap on iron post (U. S. C. E. p. b. m. 66) 103.366

Buxtons Landing, on J. A. Williams's plantation, 60 meters east of east wall of plantation house and 14 meters south of south wall, house stands 80 meters below mouth of Little River:

Bolt in stone underground (U. S. C. E. p. b. m. 67) 92.352
Top of cap on iron post 96.420

MONROE QUADRANGLE.

[Latitdue 32° 15′–32° 30′; longitude 92°–92° 15′.]

From Monroe west along Vicksburg, Shreveport & Pacific Ry. to Cheniere.

Monroe, in grass plot south of roundhouse at Vicksburg, Shreveport & Pacific Ry. shops, in southwest corner of plot, 8 meters north of center line of track and 2.4 meters east of east wall of office building:

Bolt in stone underground 71.896
Top of cap on iron post (U. S. C. E. p. b. m. 24) 75.964

Monroe, at north side of east end of bridge over Ouachita River, set on granite cap of concrete pier with sheet-iron casing, on northwest corner of iron-roller plate; cross cut (U. S. C. E. p. b. m. 25) 81.125

Monroe, at north side of west end of bridge over Ouachita River, in granite capstone of concrete pier with sheet-iron casing; an arrow cross (+→) cut (U. S. C. E. p. b. m. 26) 81.283

Monroe, in northwest corner of courthouse yard, in line of oak trees parallel to courthouse front and midway between two lines of oaks parallel to north wall, 45 meters west and 9 meters north of northwest corner of building:

Bolt in stone underground (U. S. C. E. p. b. m. 27) 78.386
Top of cap on iron post 82.454

West Monroe, in northeast corner of yard of T. C. McLain, at southwest corner of Cotton and Natchitoches streets, 9.2 meters east of center line of McLain's house and 10 meters north of north face of brick chimney at east side of house:

Bolt in stone underground (U. S. C. E. p. b. m. 28) 75.935
Top of cap on iron post 80.003

Digitized by Google

Cheniere station, at northwest corner of section-house yard, 17.5 meters south of center line of track and 63.7 meters east of Vicksburg, Shreveport & Pacific Ry. pile bridge 181:

	Feet.
Bolt in stone underground (U. S. C. E. p. b. m. 29)	89.957
Top of cap on iron post	94.025

From Monroe south along railroad to Logtown.

Monroe, in west abutment of railroad bridge, on south side of stone cap of south tube; point not marked (b. m. C., Burrows, 1883)	81.256
Monroe, on north (or west?) side of stone cap of north tube of east abutment of railroad bridge; point not marked (b. m. D., Burrows, 1883)	80.754
Logtown, in south corner of R. M. Filliol's field, 23 meters from main bank and 70 meters from second bank of river, 16 meters west of west corner of store and 3 meters west of warehouse:	
Bolt underground (U. S. C. E. p. b. m. 9)	71.430
Top of cap on iron post	75.498

MOUND QUADRANGLE.

[Latitude 32° 15′–32° 22′ 30″; longitude 91°–91° 07′ 30″.]

From Mound west along railroad to Barnes.

Mound station, at northeast corner of the most easterly of the Vicksburg, Shreveport & Pacific Ry. section houses, 0.8 meter south and 0.2 meter east of northeast corner of house:	
Bolt in stone underground (U. S. C. E. p. b. m. 2)	83.481
Top of cap on iron post	87.550
California station, in northeast corner of yard of Mrs. N. Thomas, about 400 meters south of Vicksburg, Shreveport & Pacific Ry. bridge 25:	
Bolt in stone underground	88.563
Top of cap on iron post (U. S. C. E. p. b. m. 3)	92.631
Barnes station, in southwest corner of yard around cabin and opposite store at, 13.4 meters from southwest corner of cabin chimney and 44 meters north of center of railroad siding:	
Bolt in stone underground (U. S. C. E. p. b. m. 4.)	81.378
Top of cap on iron post	85.446

MOUNT AIRY QUADRANGLE.

[Latitude 30°–30° 15′; longitude 90° 30′–90° 45′.]

From Mount Airy to Hester along Yazoo & Mississippi Valley R. R.

Mount Airy, 3 miles below Lutcher, 70 meters north of the Yazoo & Mississippi Valley R. R., 125 meters west of the east head block of Mount Airy siding, about 50 meters east of a bridge marked "L. 36–62," about 1,200 meters below the parish line between St. John the Baptist and St. James parishes; cross on top of cap of a screw pile (cap is badly broken, but the cross is firm, 1898) (U. S. C. E. triangulation station Chenet)	10.610
Mount Airy, on Mount Airy plantation, in front of the house of Joseph Lebourgeois, at the foot of the iron stairway, in the upper surface of the granite still; a point surrounded by a groove, marked with the letters "U. S. B. M. 1880," and was reported in good condition in 1898 (U. S. C. E. p. b. m. X).	18.222
Lutcher, about 760 meters above the depot, about 60 meters toward the river from the Yazoo & Mississippi Valley R. R. track, on the edge of a north and south ditch, 12 meters west of a 24-inch pecan tree, in the root of a 12-inch hackberry tree; wire nail (U. S. C. E. t. b. m. 83)	13.199

Digitized by Google

Hester, near, on Belmont plantation, 20 meters south of the Yazoo & Mississippi Valley R. R. track; 12 meters east and 38 meters north of Belmont store, in the north root of a 30-inch live-oak tree; wire nail (U. S. C. E. t. b. m. 71) ..... Feet. 15.623

Hester, near, on Belmont plantation, 2.5 miles below Jefferson College, at College Point, about 60 meters outside of the new levee, in front of Belmont store on the ruins of the mansion house which was burned about February, 1894, and the columns only left standing, in the cement pedestal of the column at the southwest corner; bottom of a square cavity marked with the letters "U. S. B. M." (Earth has been taken from around the ruin for the new levee and the cement is broken off the corner of the pedestal, leaving only one corner of the square cavity and part of the letters, but the elevation of the bench mark seems to be undisturbed (1898) (U. S. C. E. p. b. m. XII) 19.170

Hester, near, on Oneida plantation, 35 meters south of the Yazoo & Mississippi Valley R. R., 59 meters below milepost 48, 76 meters below a large ditch, and 465 meters above the quarters on the plantation, on a screw pile on the west side of a small ditch; the + marking the geodetic point on top of the cap (U. S. C. E. triangulation station Homestead) 16.155

Hester, near, near the southeast side of a large gateway in front of Jefferson College, on the iron post which divides the carriage drive and the footpath, 3.8 and 17.8 feet, respectively, from the east and west brick buttresses of the gateway, on two sides of the southwest corner of the post, 4.9 feet above brick foundation; horizontal line. (It was reported in good condition in 1898.) (U. S. C. E. p. b. m. XIII) 25.807

Along Yazoo & Mississippi Valley R. R.

La Place, about ¼ mile above depot, on Montague plantation, on river side of road almost in front of Montague's house, 75 meters above junction of roads, also Montague's store:

Copper bolt in tile (U. S. C. E. b. m. 201/1) 13.707

Top of cap on iron post 17.671

St. Peters, about ¾ mile below St. Peter's Church, on land owned by Nicaisse Madere, 7 meters north of live-oak tree, 30 inches in diameter, live oak is between two ditches, b. m. is on upper bank of upper ditch and 100 meters north of east and west fence between pasture and rice field:

Copper bolt in tile 9.918

Top of cap on iron post (U. S. C. E. b. m. 200/1) 13.862

Garyville, near, 6 meters in front of railroad beside road; 30½ rail lengths below milepost "36 mi. to N. O.;" on property of Valsin Oubree (colored), 10 meters above line of canal between Oubree's and Union plantations, 10 meters below road running back from bench mark 199/2 across railroad:

Copper bolt in tile 11.017

Top of cap 14.987

Bench mark 199/2 was not recovered in 1897–98. It was described in the 1894 report as 1,109.7 meters from 199/1 on property of Valsin Oubree, 40 meters below Four Seasons store, owned by Geauguard, and below square-topped house occupied by Altores Montz (U. S. C. E. b. m. 199/1).

Lutcher, on Golden Grove plantation, 417 meters back of railroad, back of an embankment of canal, which runs directly from Thompson sugarhouse, which is 700 meters above, 157 meters directly west from junction of road from Golden Grove sugarhouse and road running northwest; 60 meters above road running northwest:

Bolt in tile 7.287

Top of cap on iron post (U. S. C. E. b. m. 197/1) 11.270

Digitized by Google

Lutcher, near, on Bellevue plantation, 7 meters back of railroad, 25 rail lengths below milepost "44 miles to N. O.," 10 rail lengths above road crossing and also culvert 787, on upper side of third ditch above road: Feet.

Copper bolt in tile 10.554

Top of cap on iron post (U. S. C. E. b. m. 196/1) 14.531

Hester, near, 0.5 meter back of fence which runs back of road inside of new levee; it stands 16 meters above fourth ditch, above residence grounds of plantation, and is 340 meters above plantation sugarhouse; on Hester (Belle Alliance) plantation. (Distance between 195/1 and 195/2 is 975.3 meters, 195/1 was not recovered in 1897–98, but was described in the 1894 report as on Belle Alliance plantation, owned by J. C. Ross, of New Orleans; stone is on high embankment, back of canal running east and west on line between church back of quarters and Belmont sugarhouse; 288 meters above first road above Ross residence, running back from river; on same canal that telephone line is on):

Copper bolt in tile 11.378

Top of cap on iron post (U. S. C. E. b. m. 195/2) 15.381

College Landing, at College Point, about ¾ mile below, back of road, back of levee on property of Noel Mather (colored), 10 meters below line of fence between Mather and Adolph Feuran (colored), 58 meters southwest of Mather's house, 66 meters southwest of new Sunrise store, 40 meters south of Adolph Feuran's house, ½ mile below 60-mile post to New Orleans. (194/2 is 744.3 meters from 194/1, which is College triangulation station. 194/1 was not recovered in 1897–98 but was described in the 1894 report as 20 meters east of west boundary line of college property, 15 meters back of a short cross fence, in low, wet ground covered with cottonwood timber:

Copper bolt in tile (U. S. C. E. b. m. 194/2) 16.621

Top of cap on iron post 20.587

NAFF QUADRANGLE.

[Latitude 32° 45′–33°; longitude 91° 45′–92°.]

Along Bayou Bartholomew.

Bayou Bartholomew, on Sandidge place, about 10 meters north of bank of bayou in the southwest corner of field at end of lane; top of iron post (U. S. C. E. p. b. m. Sandidge) 89.491

Bayou Bartholomew, on the Widow Myers place, about 20 meters south of right bank of bayou, in northwest corner of field at end of lane leading to Marble place; top of iron post (U. S. C. E. p. b. m. Myers) 91.082

Bayou Bartholomew, on the Jones place, 20 meters north of right bank of bayou, in the southwest corner of yard around cabin (second below residence); top of iron post (U. S. C. E. p. b. m. Williams) 87.024

Bayou Bartholomew, on the Jones place, about 20 meters east of end of lane cutting across neck to the Williams place and 15 meters south of bank of bayou; top of iron post (U. S. C. E. p. b. m. Anderson) 90.610

Bayou Bartholomew, on the Bonner place, in the northwest corner of yard around a cabin on the lower end of the place, the cabin is where the road comes back to the bayou which cuts across the neck that includes what is known as the "Road Turns"; top of iron post (U. S. C. E. p. b. m. Bonner). 92.165

Bayou Bartholomew, on the Ward place, in the southwest corner of field adjoining yard to second cabin below the residence; top of iron post (U. S. C. E. p. b. m. Davis 2) 96.089

Bayou Bartholomew, Wards Ferry, 3 meters northeast of bridge across drain on Hope place and 10 meters north of right bank of bayou; top of iron post (U. S. C. E. p. b. m. Ward) 97.483

Digitized by Google

Bayou Bartholomew, on the Wells place, in the northwest corner of field which is east of the first cabin east of the Wells residence and about 10 meters south of left bank of bayou; top of iron post (U. S. C. E. p. b. m. Wells). Feet. 100.305

Mound Landing, in northwest corner of yard of cabin of Henry Taylor, about 20 meters south of left bank of bayou, and 100 meters below cut ditch; top of iron post (U. S. C. E. p. b. m. Mound) 102.687

NATCHEZ QUADRANGLE.

[Latitude 31° 30′–31° 37′ 30″; longitude 91° 22′ 30″–91° 30′.]

Near Vidalia.

Vidalia, near, 25 meters above permanent bench mark Lucerna, 15 meters toward river, driven vertically in bench cut on downstream root of a 2-foot honey locust tree; top of boat spike (U. S. C. E. t. b. m. 61) 61.831

Vidalia, near, opposite 6-mile post below, opposite where the chute at the head of Natchez Island joins the main bank, 94 meters back of base of levee of main road, 9 meters above a ditch leading back past the gin on the Lucerna plantation, belonging to Harry Lambert, there is a string of 8 or 10 cabins beginning about 75 meters below the pipe, 1 cabin about 75 meters above it; 4 meters back of center of road along fence, 0.5 meter outside of fence; tile and pipe (U. S. C. E. p. b. m. Lucerna):

Bolt in tile 58.661

Top of cap on iron post 62.634

Vidalia, near, at end of hedge dividing Lucerna from St. Genevieve plantation, standing in fence line, back of road, back of levee, on road side of tree, on root of a 3-foot cottonwood; nail driven vertically in bench (U. S. C. E. t. b. m. 62) 61.840

Vidalia, near, 1¼ miles below Whitehall Landing, about 100 meters above prominent angle in levee where road crosses to go back across field to plantation residence, on north side of a 12-inch willow tree standing at south edge of road along south side of levee; top of boat spike driven vertically (U. S. C. E. t. b. m. 63) 58.819

Vidalia, near, 261 meters below where the road crosses levee from Whitehall Landing, due south of the west end of the Whitehall quarters, 355° from negro church below quarters, at inner base of levee at angle immediately back of where the old bench mark 133/3 was on levee and now covered by levee enlargement; tile and pipe (U. S. C. E. new b. m. 133/3):

Bolt in tile 59.649

Top of cap on iron post 63.619

Vidalia, near, 2¼ miles below town of, on the Whitehall plantation 600 meters toward river from Vidalia road, ¾ mile above Whitehall Landing, 3 meters back of base of levee, 50 meters above prominent angle in same, 140 meters from right bank of river, on south root of 3-foot pecan tree, a triangle is blazed on the tree above bench mark, levee bench mark 448 is on the same tree; top of boat spike driven vertically into bench (U. S. C. E. t. b. m. 66). 61.982

Vidalia, near, driven horizontally into levee face of same tree bearing temporary bench mark 66; top of head of galvanized spike, elevation marked on copper plate beside spike =86.58, which is above Cairo datum (U. S. C. E. levee b. m. 448) 66.420

Vidalia, near, 1¼ miles below, on land of Henry Gaither, 300 meters north of an angle in the levee, and 680 meters west of a square angle in levee where it turns south from main road after following along its south side from Vidalia, 107 meters west (measured along road) of fence surrounding small cabin on south side of road, in field 2½ meters south of fence along south side of Whitehall-Vidalia road, on top of iron screw pile marking triangulation station Gaither; cross (U. S. C. E. b. m. LXI (C. & G. S.)=Gaither Triangulation Station) 61.922

Digitized by Google

Vidalia, in the lower end of the town of, 160 meters north of river, 75 meters north of levee, 50 meters west of road house, 50 meters south of road in front of office of Union Oil Mill, standing in the yards of the New Orleans & Northeastern R. R., driven vertically into bench cut on west root of a lone 3-foot pecan tree; top of spike (U. S. C. E. t. b. m. 69) ..... Feet. 62.569

Vidalia, in the lower part of the town of, at the right of the steps to the front entrance to Judge L. F. Mason's residence, in top of marble post set in ground, top of post is 2 inches above ground; bottom of square cavity (U. S. C. E. b. m. LXII) (C. & G. S.) 63.714

Vidalia, in a lot immediately back of the courthouse and jail at, lot is owned by J. Conti, of Natchez, Miss., 55 meters from Lake Concordia road on Trinity Street, 80 meters from levee, in center of top of monument marking southeast end of the Vidalia base line, is 14 inches square at top and projects about as much above ground; top of copper bolt, in stone marked 1878 on river side, and U. S. C. S. on the opposite side (top of bolt is slightly battered. Level party from Vicksburg U. S. Engineer office connected with these bench marks in 1893 and said this bench mark was disturbed, but did not say in what way. It shows a settlement of about 50 millimeters over the C. & G. S. bench marks in the vicinity, and probably this difference in elevation is the disturbance intended. It seems to be intact. No one in the neighborhood knows of its ever being disturbed, but they say the ground in the vicinity is soft under the surface) (U. S. C. E. b. m. LXIII (C. & G. S.)=east base) 61.427

Vidalia, on west side of Trinity Street, 440 meters back from north line of street nearest the river, 135° 20′ 420 meters from courthouse, and 194° 00′ 448 meters from church, rod held on (+) on stone 83 millimeters northeast of center of stone; this point is outside of pipe, but stone is smooth and nearly level:

Flat stone and iron pipe (U. S. C. E. b. m. 132/3) 59.767

Top of cap on iron post 64.865

Vidalia, near, 1,000 meters above the courthouse, 120 meters below cabin occupied by Demp Pierce (colored), back of road, back of levee, on right bank, 1 meter back of fence, driven vertically into stump of 6-inch honey locust tree; top of 30d. boat spike (U. S. C. E. t. b. m. 71) 65.941

Palo Alto, 1¼ miles above the courthouse at Vidalia, on Palo Alto plantation belonging to D. Minor, of Natchez, Miss., it marks the triangulation station Palo Alto of the C. & G. S. It stands in turn row, 256 meters back of levee, 7 meters back of road where it turns from back end of an old barn toward upriver, 155 meters back of downstream land corner of old barn, 64 meters south of the western one of two old cisterns where stands an old double bushy tree, 170° 44 meters from a 30-inch pecan tree which is the upstream one of a scattering grove of six, opposite a curve in the main levee, 15 meters south of the western prolongation of a spur of levee leading toward the river, approximately 110° from the old marine hospital on bluff above Natchez, Miss., on top of iron screw pile on railroad; a cross (U. S. C. E. b. m. LXIV (C. & G. S.) = Palo Alto Triangulation Station) 65.164

Vidalia, near, west side of ditch, west of road, 7 meters west of base of levee, about 20 meters below an angle in levee and 141 meters below square angle in levee, at junction with old levee, where new levee turns west to go upriver, on land of D. Minor, of Natchez, Miss., an 8-inch pecan tree stands 14 meters below the stone on the west bank of the ditch, and is blazed with a triangle facing the stone, it is the first tree below the corner of levee above mentioned; stone post (U. S. C. E. b. m. 131/3) 65.440

Digitized by Google

Vidalia, on the northeast edge of ditch between two roads 96 meters southeast from the junction of these two roads with road running northeast and southwest parallel with levee, 250 meters south of prominent angle in levee, which is at upper end of a clump of brush and trees in low ground along the levee, 32° 10′ 325 meters from junction of levee on right bank, on Dr. Carter's plantation, cap was gone off old pipe, a new pipe was placed over stone, its cap is only 3 inches above ground, set the old pipe in the corner of the hole as a finder for the new, ½ meter south of the new: Feet.

Flat stone and iron pipe..... 57.274

Top of cap on iron post (U. S. C. E. b. m. 131/4)..... 61.240

Vidalia, near, on right bank on land of F. D. Brown (Minorca plantation) near foot of old Lake Concordia, and about 6 miles above Vidalia, 28 meters back of base of levee and 4 meters outside of fence, 4 meters below old Minorca store building, 4½ meters out from permanent bench mark Minorca, tree is just back of head of willow and cottonwood bar, and back of and 40 meters below high-water gage 60, on the root on inner or land side of 3-foot elm tree; top of a boat spike driven vertically into bench (U. S. C. E. t. b. m. 84)..... 63.274

Vidalia, near, 4 meters below old Minorca store building, on Minorca plantation owned by F. D. Brown, on right bank opposite head of willow and cottonwood bar, near foot of old Lake Concordia, 44 meters back of top of levee, and about 40 meters below, and 65 meters back of high-water gage 60, ½ meter back of fence in small garden; tile and pipe (U. S. C. E. p. b. m. Minorca):

Bolt in tile..... 59.964

Top of cap on iron post..... 63.950

NEW ORLEANS QUADRANGLE.

[Latitude 29° 45′–30°; longitude 90°–90° 15′.]

From Carrollton to New Orleans.

Carrollton, in north face of masonry of northwest corner pillar of old courthouse, in the middle, about 0.03 foot from water table of pillar and about 2.5 feet above the ground; the center of small hole in center of copper bolt; letters "U. S. ⊙ P. B. M." cut near bolt (U. S. C. E. p. b. m. Carrollton). 8.957

Near New Orleans.

New Orleans, on the west side of Elysian Fields Street, 14 meters north of the gate leading to the residence of Dr. R. Tudury, midway between the curb line and granitoid walk, in the southeast root of a 30-inch live-oak tree, the first one north of North Claiborne Street; nail (U. S. C. E. t. b. m. 95).... 3.802

New Orleans, at the southwest corner of Anthonia and Claiborne streets, in the brick pier under the south post of the electric-light tower, 3 inches east of the southeast corner of the iron bedplate, about 2 feet inside of the curb line on the west side of Anthonia Street, and 2.7 meters south of the southwest corner of the two streets, 3 inches under ground; top of a vertical copper bolt (U. S. C. E. p. b. m. 41)..... 0.554

New Orleans, established by the Mississippi River Commission in 1882, in the east face of the middle brick gatepost of the Gentilly gate, on the east side of the fair grounds, in the fifth course of brick above the ground; a horizontal line on the end of a horizontal copper bolt, marked "U ⊙ S" (U. S. C. E. p. b. m. 3)..... 4.288

New Orleans, at the corner of Lapeyrouse Street and Gentilly Road, on the iron bedplate supporting the southern post of the electric-light tower; a cross (+) cut (U. S. C. E. t. b. m. 175 Paige, 1893)..... 2.106

Digitized by Google

New Orleans, established by the Mississippi River Commission, in 1882, at the northwest end of the drawbridge over Bayou St. John, on the Esplanade Road, in the northwest face of the southern wing of the abutment, the brick wing of the abutment in which the bolt is leaded is very badly cracked (1900) and shows signs of settling: the center of the end of a horizontal copper bolt, marked U S ⊙ P. B. M. (U. S. C. E. p. b. m. 2) ..... Feet. 9.170

New Orleans, on the west side of the canal near the entrance to Metairie Cemetery, in line with the fence along the south side of the cemetery, 4.7 meters from the southern end of the wall forming the cemetery entrance, and 41 meters from the western end of the bridge crossing the canal: a + on the top surface of a granite marking stone, the top of which is 120 by 200 millimeters, marked thus; ⊞ and is quite rough, it is lower at the intersection of the + than elsewhere and the rod was held at this point (U. S. C. E. p. b. m. Halfway House) 5.364

New Orleans, in the southwest corner of the City Park, 3 meters each from the south and west fences; a granite monument 1 foot square, top of stone is marked thus: XXMR JUNE 1874 and the bench mark is the center of the upper part of the figure 8 (U. S. C. E. City Stone XXMR) 4.816

New Orleans, in City Park, 9 meters from the west fence and 95 meters from the south fence, on the highest part of a limestone monument, 5 inches square, about 1 inch south of the hole in the center of the stone; cross (U. S. C. E. b. m. City Park) 4.829

New Orleans, at the southeast corner of the Calumet National Cemetery, three-fourths of a mile below Jackson Barracks in New Orleans, at the end of the brick wall in front of the cemetery, on the north side of the road, 5 meters from the inner base of the levee, on the southeast corner of the projection of a brick post; a point in square cut (U. S. C. E. t. b. m. 170) 9.334

Carrollton, in the line of trees on the west side of the electric-car tracks on Carrollton Avenue, 44.3 meters from the northwest corner of Elm Street and Carrollton Avenue, 52.9 meters from the southwest corner of Zimple Street and Carrollton Avenue, 14.2 meters from the west line of Carrollton Avenue, and 2 meters west of the west rail of the street-car track, top of stone is 1 foot below ground; top of a granite marking stone, marked XXMB JUNE + 1874 (Rods held on the point indicated on the sketch by a cross; there is no cross on the stone. The bench mark was reported in good condition in 1898) (U. S. C. E. b. m. City Stone XXMB) 4.606

Carrollton, on the east side of Carrollton Avenue, the first tree north of the entrance to the school building, McDonough 23, in the west root of 18-inch live-oak tree; nail (U. S. C. E. t. b. m. 160) 6.260

Carrollton, on Carrollton Avenue, at the north corner of the school building McDonough 23 (old courthouse), in the northeast face of the masonry, in the middle of the base of the pilaster at the corner of the building 0.3 foot below the water table of pilaster and about 1.5 feet above ground; the center of a copper bolt, marked U S ⊙ P. B. M. (U. S. C. E. p. b. m. Carrollton) 8.957

Digitized by Google

Carrollton, about 80 meters above the end of St. Charles Avenue at the levee, 6 meters back of the levee, to the left of the steps of the entrance to a tin shop belonging to F. Marsel, in a flower bed 1 foot from the front porch; stone and pipe: Feet.

Bolt in stone underground..... 6.112

Top of cap, marked "U. S. E. B. M." (U. S. C. E. b. m. A. (Ewens, 1892) (Carrollton gage bench mark) top of cap on iron post..... 10.197

New Orleans, on northeast corner of Forstall and Villers streets, back of New Orleans & Southern R. R. at southwest corner of Mr. Boman's land, just outside of fence corner and between fence and ditch, 346.2 meters back of railway:

Copper bolt in tile (U. S. C. E. b. m. 215/1)..... 0.423

Top of cap over 215/1 (215/1 A)..... 4.360

Carrollton, on line of fence running back from Steamship Exchange saloon, 50 meters above Illinois Central R. R. tracks and Southport elevator, pasture on upper side, lower side cultivated:

Copper bolt in tile (U. S. C. E. b. m. 211/1)..... 0.492

Top of cap on iron post..... 4.442

New Orleans, at Jackson Barracks, on inside of inclosure, on east side of the sally port, in base of the second column; top of a vertical copper bolt, letters U. S. P. B. M. cut near the bolt (U. S. C. E. p. b. m. 38)..... 10.372

New Orleans, 40 feet eastward from intersection of St. Claude and Elizardi streets, on south side of St. Claude Street, in root of 15-inch hackberry; nail (U. S. C. E. t. b. m. 165)..... 3.673

New Orleans, on the east side of Forstall Street about 18 inches from east fence and 346.2 meters northward from the New Orleans & Southern Ry. to triangulation St. Maurice 325° 58′ 55″, 1,409.8 meters; to Ursulines Convent 47° 06′ 05″, 1,149.7 meters; on top of pipe over bench mark 215/2; top of cap (U. S. C. E. b. m. 215/1 A)..... 4.404

New Orleans, about 50 meters west of Lesseps Street, 6 feet from north side of St. Claude Street, in root of 15-inch live oak; nail (U. S. C. E. t. b. m. 166)..... 3.343

New Orleans, at the northwest corner of Congress and Rampart streets, at east entrance of the Academy of the Holy Angels, at the Congress Street entrance, in granite doorstep, 1 inch from front of step and 5 inches from south jamb; top of vertical copper bolt (U. S. C. E. p. b. m. 39)..... 4.686

New Orleans, at the northeast corner of Mandeville and Marias streets, in the brick wall around the Church of the Annunciation, on Mandeville Street and 3.2 meters north of the north line of Marias Street, in the center of a buttress and in sixteenth course of bricks above the pavement; center of horizontal copper bolt (U. S. C. E. p. b. m. 40)..... 7.452

New Orleans, at the corner of Lapeyrouse Street and Gentilly Road, on the iron bedplate supporting the southern post of the electric-light tower; + cut (U. S. C. E. t. b. m. 175)..... 2.094

New Orleans, at the southeast corner of Claiborne and Canal streets, on top of south end of granite step of the Crescent City Brewing Co.'s building; + cut (U. S. C. E. p. b. m. 42)..... 4.161

New Orleans, in Lafayette Park, in the marble monument established by the U. S. Coast and Geodetic Survey for an astronomical station; top of vertical copper bolt, top is flush with the top surface of the stone and is marked thus:

U. S. P. B. M.
⊙ (U. S. C. E. p. b. m. 43)..... 12.626

Digitized by Google

ODENBURG QUADRANGLE.

[Latitude 30° 45′–31°; longitude 91° 45′–92°.]

Near Simmesport.

	Feet.
Simmesport, about 2.4 kilometers (measured along road) west of, in thirteenth course of brick above ground of chimney of cabin occupied by W. B. Jones (colored) on H. N. Norwood's plantation, cabin is on right bank of Bayou des Glaises and on Atchafalaya Road, about 175 meters east of Harland's (also called Holland's) Bayou; in head of copper bolt leaded horizontally; center of cross (U. S. C. E. p. b. m. 88)	50.495
Simmesport, in northeast corner of J. E. Trudeaus's front yard and just south of N. Norwood's store; bolt (U. S. C. E. p. b. m. 89)	41.942

PLAIN DEALING QUADRANGLE.

[Latitude 32° 45′–33°; longitude 93° 30′–93° 45′.]

Near Plain Dealing and Alden Bridge.

Plain Dealing, 100 meters north of depot, 18 meters west of St. Louis Southwestern Ry. track at a point 10 meters south of point of curvature; pipestone bench (U. S. C. E. p. b. m. Plain Dealing):	
Bolt in limestone underground	260.816
Top of cap on iron post	264.884
Alden Bridge, on northeast side of yard, 3.6 meters from hotel building, 80 meters west of main track of the St. Louis Southwestern Ry. at a point 125 meters northeast of depot; pipestone bench (U. S. C. E. p. b. m. Alden Bridge):	
Bolt in limestone underground	215.925
Top of cap on iron post	219.993

POINT LA HACHE QUADRANGLE.

[Latitude 29° 30′–29° 45′; longitude 89° 45′–90°.]

Along Mississippi River.

Bohemia, about 1,300 meters above the railway water tank at, 188 meters from the New Orleans & Southern Ry., and 20 meters east of the levee, on east bank on Dr. Herbert's land, 145 meters south of his north line, and on south side of ditch; in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 22)	3.594
Permanent bench mark 22, on top of pipe over; top of cap (U. S. C. E. p. b. m. 22 A)	7.562
Plaquemine Parish courthouse, about 2 miles below, 22 meters back of levee, on east bank on north side of plantation road running along north side of Martin Bros.' plantation; in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 230/2)	1.659
Bench mark 230/2, on top of pipe over; top of cap (U. S. C. E. b. m. 230/2 A)	5.624
Plaquemine Parish courthouse, about 1 mile below, 25 meters back of levee, 25 meters below storehouse, 6 meters southeast of house, on east bank in Theophile Hingle's front yard; in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 23)	2.257
Permanent bench mark 23, on top of pipe over; top of cap (U. S. C. E. p. b. m. 23 A)	6.230
St. Thomas's Church, 375 meters above, 1 meter north of row of large willows and in fence corner, 13 meters back of levee, on east bank between lands of John Lafitte and B. Savois, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 229/2)	2.300
Bench mark 229/2, on top of pipe over; top of cap (U. S. C. E. b. m. 229/2 A)	6.255

Digitized by Google

	Feet.
Point a la Hache, on lower side of steps leading to main entrance of the Plaquemine Parish courthouse, in top of coping, top of bolt is 8 millimeters below the concrete coating; top of vertical copper bolt (U. S. C. E. p. b. m. 24)...	10.113
Plaquemine Parish courthouse, about 3 miles above, on east bank on Mrs. Auguste Gravolet's land, 3 meters from a 24-inch hackberry, 163 feet northward from the north corner of Mrs. Gravolet's house, 111 meters from the New Orleans & Southern Ry., in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 25).....	1.904
Permanent bench mark 25, on top of pipe over; top of cap (U. S. C. E. p. b. m. 25 A).....	5.866
Plaquemine Parish courthouse, about 4.5 miles above, at end of lane leading back from main road and about 2 feet from fence corner on upper side of lane, in ground between lands of Dr. Herbert and J. Dole, to Celeste chimney, 321° 23′ 37″, 1,841.6 meters; to Junior chimney, 49° 53′ 42″, 1,286.1 meters; in vitrified-clay slab; top of copper bolt (U. S. C. E. b. m. 228/2).	3.053
Bench mark 228/2, on top of pipe over; top of cap (U. S. C. E. b. m. 228/2)....	7.022
Bellevue plantation, on, 24 meters back of levee and 1 meter east of ditch, on east bank, 192$\frac{5}{10}$ meters from New Orleans & Southern Ry., to Bellevue schoolhouse chimney, 111° 11′ 13″, 559.8 meters, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 26).....	3.358
Permanent bench mark 26, on top of pipe over; top of cap (U. S. C. E. p. b. m. 26 A).....	7.330
Harlem plantation, on south side of ditch running along north side of live-oak grove, on east bank, 365 meters above the old Harlem sugarhouse, 141 meters from the New Orleans & Southern Ry., two live-oak trees blazed are, respectively, 19 and 22 meters from the bench mark to Bellevue chimney, 299° 35′ 02″, 1,479.2 meters, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 227/2).....	2.251
Bench mark 227/2, on top of pipe over; top of cap (U. S. C. E. b. m. 227/2 A)..	6.225
Harlem sugarhouse, about 1.75 miles above, on land of E. H. McCaleb, on east bank, 75 meters back of levee, 72 meters northward from Joshua Griffin's house and in corner of small field beside ditch, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 27).....	3.023
Permanent bench mark 27, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 27 A).....	6.987
Poverty Point, on east bank just below, 14 meters back of base of levee on C. W. Johnson's land, 304.5 meters in front of New Orleans & Southern Ry., in fence corner on lower side of ditch, 99 meters below a 14-inch live-oak tree in line of road fence, tree is near two small houses, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 226/2).....	4.243
Bench mark 226/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 226/2 A).....	8.194
Mon Secour's plantation, on east bank on, 7 feet east of ditch along road and 53 meters from west corner of main dwelling and 67 meters from the northwest corner of a long dwelling near road leading back to sugarhouse, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 28)....	0.604
Permanent bench mark 28 described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 28 A).....	4.567
St. Sophia post office, 144 meters above, 15 meters from base of levee on lower side of plantation road at its intersection with main road, on Monticello plantation, in vitrified clay slab in ground on east bank; top of copper bolt (U. S. C. E. b. m. 225/2).....	3.551
Bench mark 225/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 225/2 A).....	7.533

Digitized by Google

	Feet.
Fairview plantation, on east bank, in northwest corner of garden, in front of manager's house, 20 meters from house and 57 meters back from levee, in vitrified clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 29)	2.001
Permanent bench mark 29, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 29 A)	5.959
Belair plantation, on east bank, in negro churchyard, 17 meters from the southwest corner of the church, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 224/2)	1.803
Bench mark 224/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 224/2 A)	5.761
Fanny plantation, on east bank, about 600 meters below the main buildings, in a graveyard, 6 feet north of ditch, 38 feet toward river from a large live-oak tree, 245 feet from the New Orleans & Southern Ry., about 160 meters back from the levee measured along ditch, to Belair sugarhouse 330° 59′ 08″, to Fanny sugarhouse 161° 16′ 16″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 30)	2.840
Permanent bench mark 30, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 30 A)	6.799
Old Woodland plantation, on the east bank, 10 meters in front of old levee and 101 meters back from new levee, 8 meters above ditch and 232 meters from the New Orleans & Savannah Ry. on land of Charles Reggio, the cap on top the iron post bears the inscription "U. S. Coast and Geodetic Survey 1871, G+P"; + in center of cap iron screw pile projecting about 1 foot above ground (Triangulation Berthoud, U. S. C. & G. S. station, b. m. 223/2)	8.565

QUARANTINE QUADRANGLE.

[Latitude 29° 15′–29° 30′; longitude 89° 30′–89° 45′.]

Along Mississippi River.

Fort St. Philip, 1 mile above, on end of old levee running back to swamp on land of Patrick Callahan, in ground on east bank, 40 meters from Callahan's house and 49 meters from an old stable on the river side of main levee, about 6 meters inside of main levee and 70 meters from the river, to Triangulation Taylor 33° 06′ 18″, 1,248.14 meters, in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 13)	3.254
Permanent bench mark 13, on top of pipe over; top of cap (U. S. C. E. p. b. m. 13 A)	7.225
Fort St. Philip, about 2¾ miles above, 20 meters above Mrs. S. H. Butler's store and Neptune post office, 25 meters from river, 10 meters back of levee, in ground on east bank, in vitrified-clay slab; top of copper bolt (U. S. C. E. b. m. 238/2)	1.945
Bench mark 238/2, on top of pipe over; top of cap (U. S. C. E. b. m. 238/2 A)	5.897
Fort St. Philip, about 3⅝ miles above, 12 feet from a line stake between Mrs. Smith's and Herman Beck's lands, 3 feet inside of road fence, 70 feet southwest of Mrs. Smith's house, on land of Marie Antoinette Grandpre Smith, in ground on east bank, in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 14)	1.303
Permanent bench mark 14, on top of pipe over; top of cap (U. S. C. E. p. b. m. 14 A)	5.255
Fort St. Philip, about 5 miles above, in west end of second doorsill from east end of the old United States customs and quarantine building; top of vertical copper bolt (U. S. C. E. p. b. m. 15)	5.491

Digitized by Google

	Feet.
United States customs and quarantine buildings, about 1 mile above, on land of August Barry, on east bank, 15 meters southeast of Barry's house and 10 meters back of levee, and 140 meters from the river, to Buras Church, 324° 46′ 35″, 1,368.7 meters; to bench mark 237/3, 18° 02′ 12″, 897.9 meters, in ground, in vitrified-clay slab; top of copper bolt (U. S. C. E. b. m. 237/2).	1.810
Bench mark 237/2, on top of pipe over; top of cap (U. S. C. E. b. m. 237/2 A).	5.756
Old United States customs and quarantine buildings, about 2¾ miles above, on east bank on land of Antoine Jones, 43 meters from Jones's house, 52 meters from schoolhouse, 5 meters back of levee, 7 feet from a post marking the line between lands of Antoine Jones and Gilbert Buras, to Triangulation Grand Prairie, 149° 24′ 56″, 116.27 meters, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 16)	1.889
Permanent bench mark 16, on top of pipe over; top of cap (U. S. C. E. p. b. m. 16 A)	5.847
O. K. red store, about 750 meters below, 430 meters below negro school and church, 6 meters back of the levee and 18 meters from Loceco's house, on east bank on land of V. Loceco, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 236/2)	1.191
Bench mark 236/2, on top of pipe over; top of cap (U. S. C. E. b. m. 236/2 A).	5.146
Old United States customs and quarantine buildings, about 5⅓ miles above, 90 meters west of a schoolhouse, in the southwest corner of Noel Buras's orange grove, 1 meter from each fence, in vitrified-clay slab in ground on east bank; top of copper bolt (U. S. C. E. p. b. m. 17)	0.938
Permanent bench mark 17, on top of pipe over; top of cap (U. S. C. E. p. b. m. 17 A)	4.899
Hicks Bayou, about 290 meters below, about 195 meters above John Kelley's house, about 50 meters above fence corner, 15 meters back of road, on east bank on land of Meyer Wise, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 235/2)	1.545
Bench mark 235/2, on top of pipe over; top of cap (U. S. C. E. b. m. 235/2 A).	5.515
Harris's canal, 20 meters from, about 80 meters back of levee, 4 meters in front of J. Liugoni's house, on east bank, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 18)	1.098
Permanent bench mark 18, on top of pipe over; top of cap (U. S. C. E. p. b. m. 18 A)	4.063
Berkson brothers, on land of, about 18 meters back of point where old and new levees unite, 17 meters below a house, 105 meters from the river, 60 meters northwest of a 3-foot hackberry, blazed, which stands outside the levee, to church spire, 119° 03′ 18″, 141.21 meters; in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 234/2)	1.960
Bench mark 234/2, on top of pipe over; top of cap (U. S. C. E. b. m. 234/2)	5.935
Wesley Church, about 1,160 meters above, 110 meters from the road on river side, an iron screw pile projecting above ground, the top terminating in a cast-iron cap bearing the inscription "U. S. Coast Survey, 1870, G+P"; bench mark is the highest point of the letter "C" (U. S. C. E. Triangulation White) (A. U. S. C. & G. S. station)	5.816
Wesley Church, about 1¾ miles above, 30 meters north of Laudebaugh's house, 66 meters from levee, on land of William Laudebaugh, in ground on east bank; in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 19)	4.147
Permanent bench mark 19, on top of pipe over; top of cap (U. S. C. E. p. b. m. 19 A)	8.113

Digitized by Google

	Feet.
Nestor Landing, 32 meters south of the center of Nestor Canal, 4.2 meters north of the northwest corner of S. M. Fusich & Co.'s store, in ground 15 meters back of levee, in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 20)	2.282
Permanent bench mark 20, on top of pipe over; top of cap (U. S. C. E. p. b. m. 20 A)	6.228
E. J. Cannon's house, 12 meters from the south corner of, 55 meters back from levee, 118 meters above her house, on land of Mrs. Cannon, 1 meter below fence running back from road behind levee, 4 feet north of a fig tree, to bench mark 232/3 48° 27′, 816.59 meters, to Rigaud's chimney, 45° 23′ 35″, in vitrified-clay slab in ground on east bank; top of copper bolt (U. S. C. E. b. m. 232/2)	1.544
Bench mark 232/2, on top of pipe over; top of cap (U. S. C. E. b. m. A)	5.498
White Episcopal Church, about 1,000 meters below, on Pierre Cosse's land, 6 meters back from road fence and 1 foot south of the division fence between lands of Cosse and Henry W. Fox, on east bank, to Triangulation Union, 147° 00′ 19″, 504.22 meters; to church roof apex, 150° 52′ 42″, in ground, in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 21)	2.053
Permanent bench mark 21, on top of pipe over; top of cap (U. S. C. E. p. b. m. 21 A)	6.009
White Episcopal Church, about 600 meters below, in an old orange grove 63 meters back from road; an iron screw pile projecting about 9 inches above the ground, terminating in a cast-iron cap bearing the inscription "U. S. Coast Survey 1870 G + P"; the + near center (U. S. C. E. Triangulation Union) (U. S. C. & G. S. station)	4.866
William Cannon and George Wilson, on line between lands of, on east bank, 23 meters back of the new levee and 119 meters from the river bank and 165 meters westward from George Wilson's house, to St. Patrick's Church, 323° 09′ 31″; to gable of red house, 295° 35′ 20″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 231/2)	1.766
Bench mark 231/2, on top of pipe over; top of cap (U. S. C. E. b. m. 231/2 A)	5.720

QUEBEC QUADRANGLE.

[Latitude 32° 22′ 30″–32° 30′; longitude 91° 15′–91° 22′ 30″.]

Near Quebec.

Quebec station, at northwest corner of store, which is 110 meters southwest from west end of railroad siding and 60 meters east of east end of railroad bridge over Bayou Dispute:	
Bolt in stone under ground (U. S. C. E. p. b. m. 8)	75.426
Top of cap on iron post	79.494
Quebec, near, on east bank of Tensas River, in a southeasterly direction from railroad bridge, and in direct range of second bent of east bridge approach, 8.7 meters south of center line of track:	
Bolt in stone underground (U. S. C. E. p. b. m. 9)	78.484
Top of cap on iron post	82.552
Dallas, 2.35 meters east of brick chimney of first cabin west of Tensas River, on north side of railroad track, and 4.1 meters north of center line of track:	
Bolt in stone underground	76.562
Top of cap on iron post (U. S. C. E. p. b. m. 10)	80.630

Digitized by Google

RUSTON QUADRANGLE.

[Latitude 32° 30′–32° 45′; longitude 92° 30′–92° 45′.]

From Ruston to Allen Green station.

	Feet.
Ruston, in courthouse yard, 1.5 meters south and 1.5 meters west of southeast corner of brick building used as sheriff's office, at southwest corner of Louisiana and Vienna streets:	
Bolt in stone underground (U. S. C. E. p. b. m. 33)	314.786
Top of cap on iron post	318.854
Allen Green station, 50 meters northwest of platform, 46 meters north of center line of track, 1 meter east of frame store, 27 meters northeast of blazed oak:	
Bolt in stone underground	330.488
Top of cap on iron post (U. S. C. E. p. b. m. 34)	334.556
Ruston, near, 60 meters west of milepost 104 from Delta, 3 meters south of center of track, on steel rail; cross (U. S. C. E. t. b. m. 72a)	244.173
Ruston, near, 200 meters from milepost 104 from Delta, 3 meters south of center of track; cross on steel rail (U. S. C. E. Vicksburg, Shreveport & Pacific Ry. b. m.)	241.505

ST. BERNARD QUADRANGLE.

[Latitude 29° 45′–30°; longitude 89° 45′–90°.]

Greenwood plantation, on east bank, in the northeast corner of a lot 110 meters above the manager's dwelling and 77 meters east of the New Orleans & Southern Ry., in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 31)	1.828
Permanent bench mark 31, described above, top of pipe over; top of cap (U. S. C. E. p. b. m. 31 A)	5.783
Promised Land plantation, about 400 meters below the sugarhouse, 25 meters back of levee, about 15 feet toward the river from the tree, in root of 5-foot live oak; nail (U. S. C. E. t. b. m. 136)	6.389
Linwood plantation, on east bank, 12 meters east of the New Orleans & Southern Ry., on lower side of ditch and 4 meters above road running back to woods and about 100 meters from the main dwelling on the plantation, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 222/2)	2.507
Bench mark 222/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 222/2 A)	6.464
Gould's store, about 200 meters above, between levee and river, in fork of 24-inch willow tree, about 2 feet above ground; nail (U. S. C. E. t. b. m. 137)	11.156
Stella plantation, on east bank, in southwest corner of William Homer's front yard and 37 meters north of plantation store and about 50 meters from river, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 32)	7.052
Permanent bench mark 32, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 32 A)	11.025
Scarsdale plantation, on east bank, on the upper edge of second ditch above Stella plantation and at intersection with ditch running parallel to river, 47 meters above plantation line and 153 meters from the New Orleans & Southern Ry., in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 221/2)	4.184
Bench mark 221/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 221/2)	8.146

Digitized by Google

	Feet.
Mon Plaisir plantation, on east bank, about 14 meters above the north line of Scarsdale plantation, 184 meters back from the levee, 132 meters from the New Orleans & Southern Ry., and 145 meters from a house back of the railway, on edge of ditch at junction of two plantation roads, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 33)	3.694
Permanent bench mark 33, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 33 A)	7.653
St. Clair plantation, on east bank, 1 meter east of fence along road, 430 meters from New Orleans & Southern Ry., about 390 meters above St. Clair sugarhouse chimney, to Orange Grove lightning rod, 274° 23′ 50″; to St. Clair sugarhouse, 358° 34′ 20″, to Belle Chasse sugarhouse, 42° 34′ 32″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 220/2)	6.130
Bench mark 220/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 220/2 A)	10.091
Orange Grove plantation, on east bank, in the northwest corner of intersection of two plantation roads and between road and ditch, 137 meters back from the base of levee measured along plantation road, to Orange Grove sugarhouse cupola, 295° 11′ 51″, 751.5 meters, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 34)	2.838
Permanent bench mark 34, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 34 A)	6.784
Orange Grove plantation, on east bank, in the northeast corner, where plantation road and ditch intersects, 267 meters from New Orleans & Southern Ry., 132 meters back of levee, to Orange Grove sugarhouse cupola, 110° 38′ 22″, 932.5 meters, in vitrified-clay slab; top of copper bolt (U. S. C. E. b. m. 219/2)	3.238
Bench mark 219/2, described above, on top of pipe over; top of cap (U. S. C. E b. m. 219/2 A)	7.186
Poydras Hall plantation, on east bank on, 144 meters back of the New Orleans & Southern Ry., at a point 90 meters above the three-throw switch at Poydras Hall junction, 8 meters west of the northwest corner of fence surrounding the plantation quarters, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 35)	2.869
Permanent bench mark 35, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 35 A)	6.817
Old Repose plantation, on east bank on, in the southwest corner of a pasture 10 meters back from the New Orleans & Southern Ry., on upper side of ditch running along lower side of plantation, 197 meters back of levee and just back of plantation quarters, tile-works chimney, 165° 41′ 34″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 218/2)	2.653
Bench mark 218/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 218/2 A)	6.614
Stoney plantation, on east bank on, 4 meters above ditch running back from levee, 1 meter from ditch running parallel with railway, 243 meters back of New Orleans & Southern Ry., about 290 meters below two small negro churches, to Stoney sugarhouse chimney, 152° 37′ 50″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 36)	3.550
Permanent bench mark 36, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 36 A)	7.496
Ducross plantation, on east bank on lower edge of first ditch below upper line of, 10 meters back of New Orleans & Southern Ry., about 100 meters above dwelling and about 31 meters back of levee; in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 217/2)	4.600
Bench mark 217/2, described above, on top of pipe over; top of cap (U. S. C. E. b. m. 217/2 A)	8.547

Digitized by Google

Willis Fassy, on east bank on land of, 510 feet below D. Danterives's house, 6 meters back of New Orleans & Southern Ry., on west side of small ditch, to triangulation station Battle Ground 149° 29′ 07″, 1,213.3 meters, to refinery chimney 91° 51′ 02″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 37) ..... Feet. 7.305

Permanent bench mark 37, described above, on top of pipe over; top of cap (U. S. C. E. p. b. m. 37 A) 11.240

Mrs. Alberdine, on east bank on land of, at rear end of lane, 290 meters back of levee, in fence corner 57.5 meters from the northwest corner of house occupied by Louis Heier, 2 miles below Jackson Barracks, New Orleans, to triangulation station Battle Ground 245° 57′ 09″, 1,742.4 meters, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 216/2) 6.745

SICILY ISLAND QUADRANGLE.

[Latitude 31° 45′–32°; longitude 91° 30′–91° 45′.]

From Wisner south along St. Louis, Iron Mountain & Southern Ry. to Lee Bayou.

Wisner, about 20 meters east of track, at south end of side track, and 200 meters south of station; top of cap on iron post (U. S. C. E. p. b. m. Wisner). 75.157

Elam, at north edge of Mrs. L. Allen's store and about 30 meters west from track and 2 meters west from pump at northeast corner of store; top of cap on iron post (U. S. C. E. p. b. m. Elam) 72.625

Peck station, in northeast corner of cotton field belonging to H. & C. Newman, of New Orleans, and about 25 meters west of cottonseed house at station platform; top of cap on iron post (U. S. C. E. p. b. m. Peck) 75.210

Peck, 4 kilometers south of, on property of H. & C. Newman, on north bank of bayou and 10 meters east of south end of trestle over bayou; top of cap on iron post (U. S. C. E. p. b. m. Newman) 71.824

Chisum, 2.3 kilometers north of Florence, about 30 meters west of track and at south edge of plantation road on H. & C. Newman's place; top of cap on iron post (U. S. C. E. p. b. m. Chisum) 72.159

Florence, Sicily Island post office, about 15 meters west of track, on railroad property, and about 125 meters north of depot; top of cap on iron post (U. S. C. E. p. b. m. Florence) 72.795

Copeland, about 35 meters east of track and 35 meters southeast from station platform; top of cap on iron post (U. S. C. E. p. b. m. Copeland) 64.485

Kirks Ferry, in southeast corner of yard of S. F. Kiper on Tensas River and above mouth of Choctaw Bayou, about 10 meters west of main top bank of river and 20 meters southeast of residence; top of cap on iron post (U. S. C. E. p. b. m. Kirk) 65.384

Greenville, in southwest corner of lot, 80 meters east of track and about 40 meters west of main right bank of river (U. S. C. E. p. b. m. Tensas) 64.915

Lee Bayou, on bank of Lee Bayou, and about 50 meters west of track; top of cap on iron post (U. S. C. E. p. b. m. Lee Bayou) 63.825

SYCAMORE QUADRANGLE.

[Latitude 31° 30′–31° 37′ 30″; longitude 91° 30′–91° 37′ 30″.]

Concordia station, 5 meters south of St. Louis, Iron Mountain & Southern Ry., 2 meters west from line of east side of station, and 5 meters west from road crossing track at east end of station; top of cap on iron post (U. S. C. E. p. b. m. Concordia) 60.771

Concordia, 1.5 meters above ground; on square part of spike, copper tag above zinc spike reads: U S B M 884 Elev. 88.84 (U. S. C. E. b. m. 384) 68.609

Digitized by Google

TALLULAH QUADRANGLE.

[Latitude 32° 22′ 30″–32° 30′; longitude 91° 07′ 30″–91° 15′.]

Near Tallulah.

	Feet.
Tallulah, in south wall of courthouse, 0.6 meter west of west side of main door and 0.55 meter above floor of gallery; hole in head of copper bolt leaded horizontally (U. S. C. E. p. b. m. 5)	92.152
Tallulah, at south entrance of courthouse, nearly under permanent bench mark 5, on west end of iron doorsill; cross cut (U. S. C. E. p. b. m. 6)	90.853
Lake One, on east bank of, 57 meters north of east pier of Vicksburg, Shreveport & Pacific Ry. bridge and in a southwesterly direction from Waddill's sawmill:	
Bolt in stone underground (U. S. C. E. p. b. m. 7)	77.651
Top of cap on iron post	81.719

TAYLORTOWN QUADRANGLE.

[Latitude 32° 15′–32° 30′; longitude 93° 30′–93° 45′.]

From Shreveport southeast down Red River.

Kincaid place, in southwest part of field, left bank of Red River, 115 meters back of levee on river front, 50 meters east of bank of bayou, and 60 meters northwest from cabin standing east of bayou and back of levee:	
Bolt in stone underground (U. S. C. E. p. b. m. 47)	164.137
Top of cap on iron post	168.205
Lotus Landing, right bank of Red River, in northwest corner of yard of Capt. Robson's store, 46.5 meters from river, 1.5 meters back of store, and 50 meters south of dwelling house just above the store:	
Bolt in stone underground	157.870
Top of cap on iron post (U. S. C. E. p. b. m. 48)	161.938
Cash plantation, at bend in levee about 430 meters south of gin on, right bank of river, 137 meters from river, 83 meters northwest of bayou, and 3 meters north of thorn tree on outer side of levee:	
Bolt in stone underground (U. S. C. E. p. b. m. 49)	152.510
Top of cap on iron post	156.578
Caspiana Landing, near, right bank of river, on J. H. Hutchinson's plantation, 2.5 meters east of gin, 126 meters from river, 40 meters south of public road:	
Bolt in stone underground	148.359
Top of cap on iron post (U. S. C. E. p. b. m. 50)	152.427
Campo Bello plantation, in southeast corner of Dr. T. Allison's yard, right bank, 97 meters from river, 19 meters north and 3.9 meters east of southeast corner of house, and about 300 meters southeast of gin:	
Bolt in stone underground	146.653
Top of cap on iron post (U. S. C. E. p. b. m. 51)	150.721
Bonner's plantation, right bank, 8 meters north and 2 meters east of cabin occupied by S. Smith (colored), 183 meters from river, and 300 meters southwest of a gin standing at first bend of river to the left below Bear Point Landing:	
Bolt in stone underground (U. S. C. E. p. b. m. 52)	144.225
Top of cap on iron post	148.293

Digitized by Google

TOOLEYS QUADRANGLE.

[Latitude 31° 15′–31° 30′; longitude 91° 45′–92°.]

Along Black River.

	Feet.
Hardscramble Landing, 7 meters south of public road, 15 meters south of levee, which is on left bank of Black River on an abandoned place; top of cap on iron post (U. S. C. E. p. b. m. 8a)	54.564
Lums, in fence corner 15 meters southeast of residence occupied by H. L. Pauhl on Lums place and 150 meters north of left bank of Black River; top of cap on iron post (U. S. C. E. p. b. m. 9a)	52.608
New Era post office, 23 meters south of left bank of river and 38 meters northeast from residence of Solomon Harris at Emerson Landing; top of cap on iron post (U. S. C. E. p. b. m. 10a)	52.319
Acme post office, 30 meters west of Young Pecanty's residence, 22 meters northeast of river and 80 meters below Burleigh Landing; top of cap on iron post (U. S. C. E. p. b. m. 11a)	50.551
Black River, 375 meters above mouth, on left bank; top of cap on iron post (Discharge Jar)	51.079
Mouth of Black River, 30 meters southeast from left bank, 40 meters northwest from cabin of Henry Delhoste, and 70 meters east of Delhoste Landing on Black River; top of cap on iron post (U. S. C. E. p. b. m. 12a)	49.311

VOORHIES QUADRANGLE.

[Latitude 31°–31° 15′; longitude 91° 45′–92°.]

Along Red River.

Moreauville, in twenty-second course of brick above ground of chimney on east side of cabin occupied by Edmond Baker (colored) on Dr. Rabelais's plantation; cabin is about 50 meters south of right bank of Bayou des Glaises and about 1,000 meters west of where Hamburg road leaves the bank of the bayou, in head of copper bolt leaded horizontally; horizontal cut, marked "B ⊖ M" (U. S. C. E. p. b. m. 86)	61.247
Hamburg, about 445 meters southeast of, in chimney on west side of cabin occupied by Brazil Francois on F. M. Pavey's plantation; cabin is situated about 66 meters from edge of right bank of Bayou des Glaises, in twenty-first course of brick above ground; center of copper bolt leaded horizontally, marked "B ⊗ M" (U. S. C. E. p. b. m. 87)	55.682

WATERPROOF QUADRANGLE.

[Latitude 31° 45′–31° 52′ 30″; longitude 91° 22′ 30″–91° 30′.]

Near Waterproof.

Fairchilds Island, on left bank on upper half of, on Fairchilds Island plantation, property of Britton and Kuntz Bank, of Natchez, Miss., Shelly Baker, agent, about 300 meters above stone line 126, 75 meters back of top of left bank of river, on line of lower face of a large gin and 2 meters southeast of corner of same; tile and pipe (U. S. C. E. p. b. m. Fairchilds Island):	
Bolt in tile	67.723
Top of cap on iron post	71.719
Waterproof, near, 0.75 mile below the lower end of the town of, on right bank, on Sunnybank plantation, 355 meters east of main levee, 155 meters west of an old levee, stone stands 18 inches above the ground, but appears solid, there are three cisterns around stone, one west of north 16 meters, one west of south 38 meters, and one east-northeast 32 meters, rod held on highest part of stone, which is the east part of the letter S, in field; stone post (U. S. C. E. b. m. 122/3)	67.037

Digitized by Google

Waterproof, on left of and quite near the steps leading to the front entrance of Mr. A. P. Martin's residence at, it is the lower residence on the street along the base of the levee, 250 meters below a lane leading back into the country past a church on its north side and at upper edge of town, in top of marble post, 5 inches square and 2.5 feet long, buried in ground; bottom of square cavity (U. S. C. E. b. m. LXXI, C. & G. S.) ..... Feet. 67.841

WEST DELTA QUADRANGLE.

[Latitude 29°–29° 15′; longitude 89° 15′–89° 30′.]

From Head of Passes to Stake Island.

Head of Passes, in step of circular foundation of old lighthouse at, west side of South Pass, 10 meters north of permanent bench mark 1, about 1 meter west of line of fence on west side of lighthouse yard, produced; the top of the outside one of two bricks marked Belo Fire (U. S. C. E. B. M. "Fire") Belo Fire ... 1.413

Head of Passes, in the northwest corner of the yard surrounding lighthouse, one meter from each fence, 52 meters from the northwest corner of the lighthouse; tile and pipe (U. S. C. E. p. b. m. 1, Paige):

Bolt in tile 0.484

Top of cap on pipe over p. b. m. 1 (p. b. m. 1A) 4.445

Head of Passes, in the northeast corner of lighthouse foundation, in north end of brick farthest east and about 1 meter above ground; cross (+) cut in top brick (b. m. Head of Passes Lighthouse) 5.864

Head of Passes, 150 meters northeast of lighthouse, at head of South Pass, fastened to foundation post of tide gage house; a staff gage (U. S. C. E. U. S. Engineers' gage), elevation of zero, below sea level ..... −1.706

Head of Passes Lighthouse, 300 meters below a point which is directly opposite, 2,000 meters below triangulation Donovan 2, 10 meters from edge of swamp, 62 meters from river bank, on right bank of Southwest Pass, 6-inch willow is 1 meter west, blazed with triangle facing permanent bench mark; tile and pipe (p. b. m. Southwest Pass No. 1):

Bolt in tile 0.272

Top of cap on iron post 4.245

Head of Passes Lighthouse, about 1.25 miles below, on right bank of Southwest Pass, 10 meters from edge of water, 2 meters back of 10-inch ash tree blazed with triangle facing permanent bench mark; tile and pipe (U. S. C. E. p. b. m. Southwest Pass, No. 2):

Bolt in tile 0.862

Top of cap on iron post 4.835

Head of Passes Lighthouse, about 2¼ miles below, on right bank of Southwest Pass, 15 meters from water's edge, 10 meters back and 2 meters above sounding flag 29, which is marked with iron pipe; tile and pipe (U. S. C. E. p. b. m. Southwest Pass, No. 3):

Bolt in tile 0.844

Top of cap on iron post 4.814

Head of Passes Lighthouse, about 3¼ miles below, on right bank of Southwest Pass, 17 meters from water's edge, 15 meters below Scotts Canal; tile and pipe (U. S. C. E. p. b. m. Southwest Pass, No. 4):

Bolt in tile 0.168

Top of cap on iron post 4.131

Digitized by Google

	Feet.
Southwest Pass, on the right bank of, about 105 meters above Scott's house, about 10 feet below upper angle in levee which surrounds the house and on the line running between the house and the pass, it is marked by a 30-foot station; tile and pipe (U. S. C. E. b. m. Triangle, Scott's Tower):	
Bolt in tile	0.615
Top of cap on iron post	4.577
Scott's house, 30 meters below, 113 meters below triangulation Scott's Tower, 14 meters above sounding flag 52, in east side of 12-inch leaning willow tree, on river bank; wire nail (U. S. C. E. t. b. m. 303)	3.04
Southwest Pass, on right bank of, 1 mile below Scott's house, 10 meters from water's edge, 3 meters above and 3 meters back of 12-inch willow blazed with triangle facing p. b. m.; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 5):	
Bolt in tile (below sea level)	−0.045
Top of cap on iron post (above sea level)	3.924
Southwest Pass, on right bank of, 2 miles below Scott's house, 15 meters from water's edge, 30 meters below sounding flag 73; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 6):	
Bolt in tile (below sea level)	−0.100
Top of cap on iron post (above sea level)	3.852
Southwest Pass, on right bank of, about 3½ miles below Scott's house, on small point opposite triangulation Willow, 13 meters from water's edge; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 7):	
Bolt in tile	0.610
Top of cap on iron post (above sea level)	4.571
Double Bayou, 323 meters below, on right bank of Southwest Pass, 15 meters from water's edge, 65 meters above sounding flag 95; tile and pipe (U. S. C. E. p. b. m., Southwest Pass No. 8):	
Bolt in tile (below sea level)	−0.765
Top of cap on iron post (above sea level)	3.205
Double Bayou, 1⅛ miles below, on right bank of Southwest Pass, 8 meters from water's edge, 54 meters above sounding flag 106; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 9):	
Bolt in tile (below sea level)	−0.123
Top of cap on iron post (above sea level)	3.846
Double Bayou, about 2⅛ miles below, on right bank of Southwest Pass, 16 meters from water's edge, 50 meters below sounding flag 116; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 10):	
Bolt in tile (below sea level)	−0.554
Top of cap on iron post (above sea level)	3.410
Pilot Town, about 300 meters above upper end of, on right bank of Southwest Pass, 20 meters from water's edge, about 65 meters above sounding flag 128; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 11):	
Bolt in tile (below sea level)	−0.208
Top of cap on iron post (above sea level)	3.759
Pilot Town, opposite a point about three-quarters of a mile below, about 100 meters below old telegraph station, on right bank of Southwest Pass, 10 meters back of sounding flag 138; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 12):	
Bolt in tile (below sea level)	−0.070
Top of cap on iron post (above sea level)	3.884

Digitized by Google

	Feet.
Lighthouse Bayou, on left bank of, 4 meters above walk leading back to lighthouse, 5 meters from water's edge, 7 meters east of small house at junction of walk and dock, at southeast corner of small platform used for workshop; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 13):	
Bolt in tile (below sea level)	−0.509
Top of cap on iron post marked "B. M. 1893" (above sea level)	3.467
Southwest Pass Lighthouse, on, in base of column on north side of lighthouse, on east side of walk, directly under arrow cut in side of column, about 2 inches above bedplate on which the column rests; the bottom of a shallow, round cavity (U. S. C. E. p. b. m. Southwest Pass No. 14)	0.649
Stake Island, 12½ meters north of north corner of beacon, 4 meters east of west edge of brush, 1 meter north of line of Southwest Pass Lighthouse and C. P. 24, produced, and 21½ meters from C. P. 24, which is marked with a 2-inch gas pipe; tile and pipe (U. S. C. E. p. b. m. Southwest Pass No. 15):	
Bolt in tile	1.215
Top of cap on iron post	5.188
Stake Island, in top of one of the bolts which hold cap on iron pile under north corner of iron beacon on, on corner of beacon nearest Southwest Pass Lighthouse, top of bolt is 31½ millimeters above top of cap; cross (+) cut (U. S. C. E. p. b. m. Southwest Pass No. 16)	3.473
Head of Passes Lighthouse, 140 meters northeastward from, on west side of head of South Pass, fastened to foundation post of boat house; vertical board gage (U. S. Engineers' gage) elevation of zero (below sea level)	−1.735
Head of Passes Lighthouse, in the northeast corner of foundation, in the north end of brick farthest east and about 1 meter above ground; cross (+) (U. S. C. E. bench mark in Head of Passes Lighthouse)	5.859
Head of Passes Lighthouse, 52 meters from the northwest corner, 1 meter from each fence in the northwest corner of the yard; top of copper bolt leaded vertically in a vitrified-clay slab in ground and surmounted by an iron pipe (U. S. C. E. p. b. m. 1)	0.508
Permanent bench mark 1, top of cap on pipe (p. b. m. 1A)	4.461
Head of Passes Lighthouse, about 20 meters east of, in the west wall of the brick oil house, in the sixteenth course of bricks above the ground; center of a horizontal copper bolt, marked thus "U. S. P. B. M." (U. S. C. E. p. b. m. 2)	5.487
Head of Passes Lighthouse, about 2,300 meters above, about 100 meters back from river, S. 60° W. 84 meters from triangulation Donovan No. 2, 5.8 meters from a 14-inch blazed willow tree, in vitrified-clay slab in ground on west bank; top of copper bolt (U. S. C. E. p. b. m. 3)	1.133
Permanent bench mark 3A, on top of pipe over; top of cap (U. S. C. E. p. b. m. 3 A)	5.067
Pilot Tower, on west bank just opposite, 30 meters from river, azimuths and distances from the bench mark are: To Pilots' tower, 243° 23′ 11″, 1,491.63 meters; to triangulation Cubitt's Chimney, 297° 25′ 04″, 2,931.28 meters; to triangulation north, 179° 17′ 11″, 2,939.63 meters; to Fog-bell tower, 192° 51′ 40″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 245/3)	No elevation given.
Bench mark 245/3, on top of pipe over; top of cap (b. m. 245/3 A)	3.402
Cubitts Crevasse, about opposite middle of, on west bank, about 50 meters back from river, 12-inch willow 3½ meters northwest of the bench mark and another 12-inch willow 12 meters northwest which contains temporary bench mark 11, in vitrified-clay slab; top of copper bolt (U. S. C. E. p. b. m. 4)	1.380

Digitized by Google

	Feet.
Permanent bench mark 4, top of pipe over; top of cap (U. S. C. E. p. b. m. 4 A)	5.324
Permanent bench mark 4, 12 meters southeast of, in root of a 12-inch willow tree; nail (U. S. C. E. t. b. m. 11)	2.716
F. L. Streckert's orange grove, in, 17 meters northward from Streckert's house, midway between two orange trees, about 4 miles below the jump, on west ban, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. t. b. m. 5)	1.283
Permanent bench mark 5, on top of pipe over; top of cap (U. S. C. E. p. b. m. 5 A)	5.248
Jump, about 2,500 meters below, on west bank, 18 meters from the river in an open field, azimuth to tower at the jump, 130° 38′ 21″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 6)	.673
Permanent bench mark 6, on top of pipe over; top of cap (U. S. C. E. p. b. m. 6 A)	4.633
Jump, about 100 meters above, on west bank, 53 meters from the Tropical Fruit Co.'s store and 45 meters from Levy's store, is respectively 16 and 13 meters from two blazed willow trees, to bench mark 242/2, 221° 46′ 56″, 1,059.06 meters, to tower at jump, 312° 12′ 00″, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. b. m. 242/3)	2.233
Bench mark 242/3, on top of pipe over; top of cap (U. S. C. E. b. m. 242/3 A)	6.186
Jump, about 2,200 meters above, on land of Pierre Leon Buras, on west bank, 7 meters back of levee, 40 meters from river, 17 meters toward river from Buras's house, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 7)	1.128
Permanent bench mark 7, on top of pipe over; top of cap (U. S. C. E. p. b. m. 7 A)	5.074
Jump, about 5 miles above, 947 meters above house now occupied by Pierre A. Jauntures, on west bank, on Dr. Talbot's land, on southern slope of levee, 20 meters south of 18-inch tree, blazed, in vitrified-clay slab in ground; top of copper bolt (U. S. C. E. p. b. m. 8)	1.966
Permanent bench mark 8, on top of pipe over; top of cap (U. S. C. E. p. b. m. 8 A)	5.918

WHITE CASTLE QUADRANGLE.

[Latitude 30°–30° 15′; longitude 91°–91° 15′.]

Near Geismar.

New River, on the Yazoo & Mississippi Valley R. R., 14½ meters west of the track, 83 meters below the depot, on the west edge of the right of way, 18 meters above the road crossing, 2 feet from the junction of the right-of-way fence and the fence on the north side of the road leading to the river:	
⅝-inch copper bolt leaded in a vitrified tile below surface of ground (U. S. C. E. p. b. m. New River)	20.413
Top of cap on iron post	24.386
Geismar, formerly called Hard Times, near, on Southwood plantation, at the extreme upper end of Ascension Parish, on the upper surface of the projecting brick foundation running around the house, a square opening was cut through the stucco covering, so as to allow the rods to rest upon the brick point, marked with the letters "U. S. B. M." and the date 1880, and was reported in good condition in 1897 (U. S. C. E. p. b. m. XX)	23.553

Digitized by Google

WINNSBORO QUADRANGLE.

[Latitude 32°–32° 15′; longitude 91° 30′–91° 45′.]

From Baskin south along railroad to Gilbert.

	Feet.
Baskin station, about 25 meters west of track directly opposite the north end of platform and 5 meters north of road; top of cap on iron post (U. S. C. E. p. b. m. Baskin)	74.147
Steele's switch, at what was formerly known as, at road crossing of New Orleans & Northwestern Ry., about 15 meters east of track and 40 meters south of trestle and at edge of dirt road; top of cap on iron post (U. S. C. E. p. b. m. Steele)	72.634
Winnsboro, in southwest corner of lot owned by Mrs. Adams, directly opposite the depot and about 40 meters west of track; top of cap on iron post (U. S. C. E. p. b. m. Winnsboro)	72.543
Eden station, on property of A. W. McDuff, about 10 meters east of track, in corner of fence, and about 80 meters north of platform and about 100 meters east of McDuff residence; top of cap on iron post (U. S. C. E. p. b. m. Eden)	72.070
Gilbert, about 40 meters west of track, in the southwest corner of a garden owned by Ephraim Williams, and about 150 meters south of depot; top of cap on iron post (U. S. C. E. p. b. m. Gilbert)	78.156
Osbornes Ferry, on Bayou Macon, 21 meters from right bank of bayou, in northeast corner of front yard to residence of W. R. Osborne; pipe-flange bench (U. S. C. E. p. r. p. Osborne)	78.589
New Light, 10 meters back from left bank of Tensas River, in the northeast corner of James R. Lynch's front yard; pipe-flange bench (U. S. C. E. p. b. m. New Light)	72.129

Digitized by Google

INDEX.

A. Page.

Acadia Parish 7
Acme post office 91
Adeline 9
Aiken quadrangle 31-32
Alabama Landing 64
Albany Point 44
Alden Bridge 82
Alexandria 33, 69
Alexandria quadrangle 33
Allen Green station 87
Alligator Bayou 21
Aloha 11
Alonzo 12
Alonzo station 12
Alsatia 19
Alto 34
Alto quadrangle 33-34
Anchor 43
Arbroth 42
Arcadia 35
Arcadia quadrangle 35
Archibald 34
Arlington 15
Arthur Lake quadrangle 11
Ascension Parish 13, 31
Ashley 22
Ashton Bridge quadrangle 16, 17
Ashwood 35
Ashwood quadrangle 16, 20, 35
Atherton quadrangle 16, 17
Atlanta 12
Avondale 24
Avoyelles Parish 31

B.

Baker 13
Baldwin 9
Barbin Landing 72
Barbre Landing 38
Barnes 20, 74
Bash station 27
Baskin station 96
Baskinton quadrangle 35
Batchelor quadrangle 35-37
Baton Rouge 14-15, 39-40
Baton Rouge Junction 16
Baton Rouge quadrangle 14-15, 38-41
Baxter Bayou quadrangle 16, 17
Bayou Bartholomew 46, 76-77
Bayou D'Arbonne 56
Bayou De Siord 55
Bayou Dorcheat 72
Bayou Macon 51
Bayou Mason 17, 18
Bayou Paul 15

Page.

Bayou Sara 14, 43-44
Bayou Sara quadrangle 13-14, 41-44
Bear Wallow 19
Beauregard Parish 31
Bedford Landing 53
Belder 28
Belle Helene 54
Bench marks, character of 6
view of 6
Benham 19
Benton 46
Bienville Parish 31
Big Creek 34
Birdseye, C. H., leveling by 13
Black Bayou 28
Blackhawk 59-60
Black River 71, 91
Blanchard quadrangle 27-29, 44-45
Blackston 49
Bodcau 46
Boeuf River 50
Bohemia 82
Bonita 46
Bonita quadrangle 46
Bossier Parish 31
Bossier quadrangle 46-47
Bougere 47
Bougere quadrangle 47-48
Boyce 48
Boyce quadrangle 48
Brooks 44, 58
Broussard 10
Brunett 17
Buckhorn 22
Bullitt Bayou 69-70
Burke 9-10
Burke station 34
Burnside 54
Burtville 39
Buxtons Landing 73

C.

Caddo Parish 27-29, 31
Calcasieu Parish 7
Caldwell Parish 31
Calhoun 55
California station 74
Calvert Lake quadrangle 48
Campti quadrangle 48-49
Carpenter station 35
Carrollton 79, 80-81
Cash Point 27
Caspiana Landing 90
Catahoula Parish 31
Catahoula Shoals 65

Digitized by Google

Page.
Charlieville 34
Chef Menteur quadrangle 49
Chelula 23
Cheniere station 74
Chicago, Rock Island & Pacific Ry 12, 13
Chisum 89
Choudrant 55
Cinclaire 15
Classification, standard of 5–6
Clayton 57
Clinton 14
Coast and Geodetic Survey, elevations from 16, 25, 31–96
Coleman 22
Coles Landing 65
Colfax 11, 68–69
College Landing 76
Colomb 54
Columbia 49, 50
Columbia quadrangle 49–50
Concordia 89
Concordia Parish 16, 31
Converse 14
Copeland 89
Corbin Ferry 18
Corps of Engineers, United States Army, elevations from 11, 31, 33–96
Collingham Landing 65
Coushatta 51
Cote Blanche 9
Cottonwood 17
Crew Lake station 34
Crichton quadrangle 50–51
Crisp, F. W., leveling by 27
Cross Bayou bridge 22
Crowley 10
Crowley quadrangle 10
Crowville 51
Cubitts Crevasse 94
Curtis 45
Cypremort 9
Cypress City 57

D.

Dallas 86
Danville 65
Datum, nature of 6–7
David Ferry 71
Delhi 51
Delhi quadrangle 51
Delta 20, 52, 53
Deltabridge 25
Deltabridge quadrangle 16, 23
Delta Point quadrangle 16, 20, 51–53
Derouen quadrangle 8–9
Desona 19
Devall 41–42
Dickard quadrangle 16, 23
Dixie 28
Donaldsonville quadrangle 54
Double Bayou 93
Downsville quadrangle 55
Doyle station 73
Drew quadrangle 55–56
Dubberly 61
Duchamp 10

Page.
Dunns Landing 73
Duson 10
Duson quadrangle 10
Dutchtown 16

E.

Eagle Bend quadrangle 56
Earle, W. E., leveling by 13
East Baton Rouge Parish 13, 31
East Carroll Parish 16, 31
East Feliciana Parish 13
Eden station 96
Egg Bend Landing 72
Elam 89
Emden 12
Enoka 20
Estherwood 10
Ethel 13
Evangeline Parish 31
Eva post office 71

F.

Fairchilds Island 91
Fairmount post office 48
Fairview 47–48
Farmerville 56
Farmerville quadrangle 56
Fay siding 13
Ferriday 26–27
Ferriday quadrangle 16, 26–27, 57
Fish Pond 57
Fish Pond quadrangle 57–58
Fishtrap Shoals 64
Florence 9, 89
Fordoche quadrangle 58
Foreman 15
Fort Adams quadrangle 59–60
Fort Jackson 60–61
Fort Macomb 49
Fort St. Philip 61, 84
Forts quadrangle 60–61
Fortune Fork 22
Franklin Parish 31
Frank Pierre Creek 64
Fred 14
Frogmore 61
Frogmore quadrangle 61
Fugitt, D. C., leveling 13

G.

Gardere 15
Garyville 75
Geismar 16, 95
Gibsland 61
Gibsland quadrangle 61
Gibsons Landing 49
Gilbert 96
Girard 33
Glass quadrangle 62
Glencoe 9
Gold Bell Church 25
Goldman 62
Gordon station 34
Grand Bend 69
Grant Parish 11, 31
Grassmans Landing 41

Digitized by Google

Page.
Gray, W. H., leveling by 16
Green, T. A., leveling by 16
Greenfield 19
Greenville 89
Greenwood 28–29, 66
Griffin 51–52, 62, 67
Grosse Tete quadrangle 16
Gumridge quadrangle 16, 23, 62
Gurley 13

H.

Hahnville 63
Hahnville quadrangle 63–64
Haile quadrangle 64
Hamburg 91
Hanna quadrangle 64
Hardscrabble Landing 91
Hard Times Landing 31–32, 68
Harrisonburg 65
Harrisonburg quadrangle 65
Haughton 46
Hayti 28
Head of Passes 92
Head of Passes Lighthouse 92, 94
Helena 57
Henderson Landing 56
Henderson Mill 45
Hermitage 42–43
Hester 75, 76
Hicks Bayou 85
Holly Grove 34
Holly Grove Landing 34
Holly Ridge 35
Hopeville 16
Hosstown quadrangle 65
Howard post office 50
Howell 14
Hunt's bridge 24, 25
Hurricane Bluff 46

I.

Iberia Parish 7
Iberville Parish 13, 31
Illinois Central R. R 81
Ivanhoe station 9

J.

Jackson 14
Jackson R. R 14
Jackson Road station 14
Jeanerette 9
Jeanerette quadrangle 9
Jefferson Parish 31
Jennings 11
Jeters Landing 45
Jewella 66
Jones Bayou 71
Jones Quarter Landing 69
Jones station 46
Jonesville 71
Jump 95

K.

Kansas City Southern Ry 28
Keithville quadrangle 29, 66
Kellogg quadrangle 66–67
Kelloggs Larding quadrangle 16, 20

Page.
Kenner 63
Kilbourne 17–18
King 66–67
Kirks Ferry 89

L.

Laclede 21, 23
Lacour 36
Lafayette 10
Lafayette Parish 7
Lake Bruen 23
Lake Bruen quadrangle 16, 23, 67–68
Lake Jatt quadrangle 11, 68–69
Lake One 90
Lake Providence 18, 19
Lake Providence quadrangle 16, 17–20
Lauderneau 34
Landry 10
Lanes Ferry 18
Lanes Ferry bridge 18
La Place 75
L'Argent 70–71
La Salle Parish 31
Laurel Hill 14
Le Compte quadrangle 69
Lee Bayou 89
Leveling, precise 7–12
Lighthouse Bayou 94
Lincoln Parish 31
Live Oak schoolhouse 15
Lobdell 41
Locust Ridge 24
Lofton 11
Loggy Bayou 50
Logtown 74
Longwood quadrangle 16
Lotus Landing 90
Louisiana, cooperation of 5, 7–8
spirit leveling in, previous publications on 5
Louisiana & Arkansas Ry 13
Louisiana Ry. & Navigation Co 11–12, 13, 16
Louisville, New Orleans & Texas R. R 54
Lucerna 27
Lums 20, 22, 91
Lutcher 74, 75–76

M.

Mabel 70
Mabel quadrangle 69–71
McClures Landing 71
McNair, E. L., leveling by 8, 11, 12
McRae, C., leveling by 13
Madison Parish 16, 31
Manghan 33
Manifest quadrangle 71
Mansford 20
Mansura 72
Maps, topographic, list of 7
Marksville 72
Marksville quadrangle 71–72
Mermenton 11
Merrick post office 38
Midland 10
Miles 54
Mill Bayou 64
Millers Bluff 65

Digitized by Google

Page.
Millikens Bend..... 22, 72
Millikens Bend quadrangle..... 16, 20, 72
Millikin quadrangle..... 16, 17
Millikins..... 17
Minden quadrangle..... 72–73
Minorca..... 26
Mississippi River Commission, elevations from..... 15, 16, 22, 23, 26, 27, 31, 79, 80
Monganza..... 58
Monroe..... 73, 74
Monroe quadrangle..... 73–74
Montgomery..... 11, 73, 74
Montgomery quadrangle..... 73
Moore station..... 13
Mooringsport..... 28, 29, 45
Moreauville..... 91
Morehouse Parish..... 31
Morville..... 57–58
Mound..... 20, 22, 74
Mound Landing..... 77
Mound quadrangle..... 16, 20, 74
Mount Airy..... 74
Mount Airy quadrangle..... 74–75

N.

Naff quadrangle..... 76–77
Natchez quadrangle..... 16, 77–79
Natchez, Red River & Texas Ry..... 61
Natchitoches Parish..... 31
Nesser..... 15
Nestor Landing..... 86
Newellton..... 21
Newellton quadrangle..... 16, 20
New Era post office..... 91
New Iberia..... 9
New Light..... 96
New Orleans..... 79–81
New Orleans quadrangle..... 79–81
New Orleans & Southern Ry..... 81–84, 87–89
New River..... 95
New Roads..... 14
Nichols..... 66
Nocks..... 59
Normands Landing..... 71
Norwood..... 13

O.

Oakes..... 12
Oak Grove..... 18
Odenburg quadrangle..... 82
Oil City..... 28
Old River..... 48
Olive Branch..... 14
Olivier..... 9
Omega..... 56
Once More Landing..... 71
Oneonta..... 24
Orleans Parish..... 31
Osbornes Ferry..... 66
Osceola..... 23
Ouachita Parish..... 31

P.

Palo Alto..... 78
Parkville..... 55
Peabody, H. W., leveling by..... 16
Peck..... 89

Page.
Philips station..... 11
Pickett..... 27–28
Pilot Tower..... 94
Pilot Town..... 93
Plain Dealing..... 82
Plain Dealing quadrangle..... 82
Plaquemine..... 15, 16
Plaquemines Parish..... 31
Plaquemines Parish courthouse..... 82, 83
Pleasant View Church..... 24
Point Breeze..... 37, 59
Point Coupee..... 44
Pointe Coupee Parish..... 13, 31
Point la Hache..... 83
Point la Hache quadrangle..... 83–84
Point Pleasant..... 32
Port Union Landing..... 56
Port Vincent quadrangle..... 16
Poverty Point..... 83
Prairieville..... 16
Precise leveling..... 7–12
Pullaway Landing..... 51

Q.

Quarantine quadrangle..... 84–86
Quebec..... 86
Quebec quadrangle..... 86
Quimby station..... 21

R.

Raccourci quadrangle..... 36
Rapides..... 33
Rapides Parish..... 31
Rayne..... 10
Rayville..... 33
Red River Landing..... 37
Red River Parish..... 31
Richland Parish..... 31
Riddle..... 14
Riverton..... 49
Rock Row Shoals..... 55
Rodney, Miss..... 48, 67
Roosevelt..... 20
Ruston..... 87
Ruston quadrangle..... 87

S.

St. Bernard Parish..... 31
St. Bernard quadrangle..... 87–89
St. Charles Parish..... 31
St. Francisville..... 14
St. Gabriel..... 15, 38
St. James Church..... 23
St. James Parish..... 31
St. Johns Church..... 17
St. John the Baptist Parish..... 31
St. Joseph..... 23, 24, 28, 67–68
St. Joseph quadrangle..... 23–26
St. Louis, Iron Mountain & Southern Ry..... 17, 19, 20–24, 26, 89
St. Martin Parish..... 31
St. Martinsville quadrangle..... 9–10
St. Mary Parish..... 7
St. Maurice..... 73
St. Peters..... 75
St. Rose..... 63
St. Sophia post office..... 83

Digitized by Google

Page.
St. Thomas Church 82
Scott 10
Scotts Bluff 56
Scott station 10
Sea level, mean, definition of 7–8
Segura 9
Sellers 63
Shelburn 17
Shiloh Shoals 64
Shreveport 27, 29, 44, 45, 46, 47
Sibley 72
Sicily Island quadrangle 89
Simmesport 82
Simsboro 35
Slaughter 14
Smithland 36–37
Solomon's Temple Church 23
Somerset 21
Southern Pacific R. R. 9–11
Southwest Pass 93
Southwest Pass Lighthouse 94
Staffords 65
Stake Island 94
Stamboul quadrangle 16, 17
Steins Bluff 56
Sunrise Landing 51
Sunshine 38–39
Sycamore quadrangle 16, 26–27, 89

T.

Talla Bena 20, 21–22
Tallulah 20, 21, 90
Tallulah quadrangle 16, 20–23, 90
Tannehill station 13
Tarbert Landing 37
Taylor station 61
Taylortown quadrangle 90
Tensas Parish 16, 31
Texas & Pacific Ry 14, 27–29
Thomastown 20
Tiger Island 49
Tooleys quadrangle 91
Topographic maps, list of 7
Trajers Bridge 15
Transylvania 19
Trinity 71
Twelvemile Bayou 27

U.

Uni 28
Union Parish 31
United States quarantine stations 85

V.

Page.
Vacherie 9
Vanceville 46–47
Vandiver, D. V., leveling by 13
Verda 11
Vicksburg, Shreveport & Pacific Ry 20, 33–34, 45, 46, 47, 52, 61, 72–74, 87, 90
Vidalia 25–26, 77–79
Voorhies quadrangle 91

W.

Waddill quadrangle 16
Walls 42
Waterproof 91–92
Waterproof quadrangle 91–92
Water Valley Landing 38
Waverly 51
Webster Parish 31
Weeks Island 8
Wells, C. S., leveling by 27
Wesley Church 85
West Baton Rouge 40–41
West Baton Rouge Parish 13, 31
West Carroll Parish 16, 31
West Delta quadrangle 92–95
West Feliciana Parish 13, 31
West Monroe 73
White Castle quadrangle 16, 95
White Episcopal Church 86
Whitehall 54
Whitford 12
Whitford station 12
Williamsport 36
Willow post office 48
Wilsons Point 17
Wilsons Point quadrangle 16, 17
Winfield 12, 13
Winfield quadrangle 12, 13
Winn Parish 11, 12, 31
Winnsboro 96
Winnsboro quadrangle 96
Wisner 89
Wood, Fox, leveling by 13

X.

XVI quadrangle 16

Y.

Yazoo & Mississippi Valley R. R. 13–14, 38–39, 54, 63–64, 74–75

Z.

Zachary 13

Digitized by Google

Digitized by Google

Digitized by Google

Digitized by Google

3 2044 055 619 258

U.S. Geological Survey

Bulletin 634

DATE DUE	BORROWER'S NAME

Digitized by Google

Digitized by Google